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STRUCTURE FILE UPDATES: 8 JUL 2010 HIGHEST RN 1229645-97-9  
 DICTIONARY FILE UPDATES: 8 JUL 2010 HIGHEST RN 1229645-97-9

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TSCA INFORMATION NOW CURRENT THROUGH January 8, 2010.

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=> fil hcap  
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FILE COVERS 1907 - 9 Jul 2010 VOL 153 ISS 3  
 FILE LAST UPDATED: 8 Jul 2010 (20100708/ED)  
 REVISED CLASS FIELDS (/NCL) LAST RELOADED: Apr 2010  
 USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Apr 2010

HCAplus now includes complete International Patent Classification (IPC)  
 reclassification data for the second quarter of 2010.

CAS Information Use Policies apply and are available at:

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate  
 substance identification.

=> d que 153

L1 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 9012-76-4/RN  
 L2 2834 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON CHITOSAN?/CNS  
 L3 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON 9000-69-5/RN  
 L4 2740 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON PECTIN?/CNS  
 L5 1 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON VANILLIN/CN  
 L6 544 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON VANILLIN?/CNS  
 L8 5 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON FERULOYL?/CNS  
 L9 344 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON FERULOYL?/CNS  
 L10 309 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON FERULAT?/CNS  
 L11 22 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON FERULYL?/CNS  
 L13 3714 SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON LIPID?/CNS  
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 L17 37978 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L4  
 L18 15655 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L5  
 L19 26968 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L6  
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 L22 2612 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L9  
 L23 2021 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L10  
 L24 1355 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L11  
 L26 56130 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L13  
 L27 QUE SPE=ON ABB=ON PLU=ON FERULOYL? OR FERULOYL? OR FER  
 ULIC? OR FERULYL? OR FERULOYL? OR FERULAT?  
 L28 QUE SPE=ON ABB=ON PLU=ON LIPID? OR FAT# OR OIL# OR WA  
 X?  
 L30 QUE SPE=ON ABB=ON PLU=ON PECTIN?  
 L31 QUE SPE=ON ABB=ON PLU=ON CHITOSAN?  
 L32 QUE SPE=ON ABB=ON PLU=ON VANILLIN?  
 L33 1863 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L14 OR L15) AND  
 (L16 OR L17)  
 L34 16 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L33 AND (L18 OR  
 L19)  
 L35 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L34 AND ((L21 OR  
 L22 OR L23 OR L24) OR L27)  
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 L43 12 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L40 AND FOOD?/SC  
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 L45 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L44 AND L30  
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 L19)  
 L49 6 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L48 AND (L28 OR  
 L26)  
 L50 8 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L48 AND FOOD?/SC  
 L51 12 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON (L49 OR L50)  
 L52 23 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L46 OR L51  
 L53 15 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L52 AND (1840-2004  
 )/PRY,AY,PY

=> fil wpiX  
 FILE 'WPIX' ENTERED AT 11:57:39 ON 09 JUL 2010  
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FILE LAST UPDATED: 2 JUL 2010 <20100702/UP>  
 MOST RECENT UPDATE: 201042 <201042/DW>  
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE  
 >>> Now containing more than 1.6 million chemical structures in DCR <<<

>>> IPC, ECLA, US National Classifications and Japanese F-Terms  
 and FI-Terms have been updated with reclassifications to  
 end of March 2010.

No update date (UP) has been created for the reclassified  
 documents, but they can be identified by  
 specific update codes (see HELP CLA for details) <<<

>>> FOR THE LATEST DERWENT WORLD PATENTS INDEX (DWPI)  
 STN USER DOCUMENTATION, PLEASE VISIT:

[http://www.stn-international.com/stn\\_dwpi.html](http://www.stn-international.com/stn_dwpi.html) <<<

>>> HELP for European Patent Classifications see HELP ECLA, HELP ICO <<<

>>> For changes in DWPI see HELP CHANGE - last updated April 6, 2010 <<<

>>> New display format ALLSTR available - see NEWS <<<

>>> US National Patent Classification thesaurus added - see NEWS <<<

=> d que 168

L27 QUE SPE=ON ABB=ON PLU=ON FERUOYL? OR FERULOYL? OR FER  
 ULIC? OR FERULYL? OR FERULOYL? OR FERULAT?  
 L28 QUE SPE=ON ABB=ON PLU=ON LIPID? OR FAT# OR OIL# OR WA  
 X?  
 L29 QUE SPE=ON ABB=ON PLU=ON (EDIBLE? OR EAT? OR CONSUM?)  
 (3A) (FILM? OR BARRIER? OR ?LAYER?)  
 L30 QUE SPE=ON ABB=ON PLU=ON PECTIN?  
 L31 QUE SPE=ON ABB=ON PLU=ON CHITOSAN?  
 L32 QUE SPE=ON ABB=ON PLU=ON VANILLIN?  
 L54 15 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L30 AND L31 AND L32  
 L55 3 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L54 AND L27  
 L56 82 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L27 AND L30  
 L57 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L56 AND L29  
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 L59 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L58 AND L29  
 L60 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L57 OR L59  
 L62 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L58 AND A21D0013?/I  
 PC  
 L63 1 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L58 AND L29  
 L64 24 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L58 AND (FOOD? OR  
 FRUIT? OR VEGETABLE?)  
 L65 14 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L64 AND L28  
 L66 2 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L64 AND (FILM? OR  
 BARRIER? OR ?LAYER?)  
 L67 25 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L55 OR L57 OR L60 OR  
 L62 OR L63 OR (L64 OR L65 OR L66)  
 L68 10 SEA FILE=WPIX SPE=ON ABB=ON PLU=ON L67 AND (PRY<=2004  
 OR PY<=2004 OR AY<=2004)

=> dup rem 153 168

FILE 'HCAPLUS' ENTERED AT 11:57:53 ON 09 JUL 2010  
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PROCESSING COMPLETED FOR L53

PROCESSING COMPLETED FOR L68

L69 22 DUP REM L53 L68 (3 DUPLICATES REMOVED)

ANSWERS '1-15' FROM FILE HCAPLUS

ANSWERS '16-22' FROM FILE WPIX

=> d 1-15 ibib ed abs hitstr hitind

L69 ANSWER 1 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 1

ACCESSION NUMBER: 2005:612036 HCAPLUS Full-text

DOCUMENT NUMBER: 143:132237

TITLE: Edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid for food products

INVENTOR(S): Bevers, Loes Elizabeth; Bouwens, Elisabeth  
 Cornelia Maria; Van der Hijden, Hendrikus  
 Theodorus Wilhelmus Maria; Ravestein, Peter

PATENT ASSIGNEE(S): Unilever N. V., Neth.; Unilever PLC; Hindustan  
 Lever Limited

SOURCE: PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005063059	A1	20050714	WO 2004-EP13327	20041123
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W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
AU 2004308061	A1	20050714	AU 2004-308061	20041123
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AU 2004308061	B2	20080911		
CA 2546661	A1	20050714	CA 2004-2546661	20041123
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EP 1699304	A1	20060913	EP 2004-798066	20041123
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EP 1699304	B1	20080917		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS			

10/583,421

BR 2004016722	A	20070116	BR 2004-16722	20041123
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ZA 2006004294	A	20071031	ZA 2006-4294	20041123
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AT 408350	T	20081015	AT 2004-798066	20041123
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ES 2313100	T3	20090301	ES 2004-798066	20041123
			<--	
US 20070166437	A1	20070719	US 2006-583421	20060619
			<--	
IN 2006MN00738	A	20070323	IN 2006-MN738	20060623
			<--	
IN 229747	A1	20090327		
PRIORITY APPLN. INFO.:			EP 2003-79171	A 20031223
			<--	
			WO 2004-EP13327	W 20041123
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

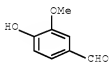
ED Entered STN: 15 Jul 2005

AB An edible barrier suitable for use in food products, comprising a cross-linked biopolymer and a lipid film material, said edible barrier having a thickness of about 2 to 1,500  $\mu\text{m}$ , effectively reduces migration of moisture and flavor in food products.

IT 121-33-5D, Vanillin, hydrocolloid biopolymers containing 4046-02-0, Ethyl ferulate 9000-69-5, Pectin 9001-62-1, Novozym 435 9012-76-4, Chitosan 9012-76-4D, Chitosan, reaction with vanillin 134633-83-3, Pectinax Ultra SPL (edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

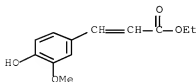
RN 121-33-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



RN 4046-02-0 HCAPLUS

CN 2-Propenoic acid, 3-(4-hydroxy-3-methoxyphenyl)-, ethyl ester (CA INDEX NAME)



RN 9000-69-5 HCAPLUS

CN Pectin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9001-62-1 HCAPLUS

CN Lipase, triacylglycerol (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9012-76-4 HCAPLUS

CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9012-76-4 HCAPLUS

CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 134633-83-3 HCAPLUS

CN Pectinex Ultra SPL (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A23P0001-08 [ICM,7]

IPCR A21D0013-00 [I,C\*]; A21D0013-00 [I,A]; A21D0015-00 [I,C\*]; A21D0015-00 [I,A]; A23B0007-00 [I,C\*]; A23B0007-16 [I,A]; A23L0001-00 [I,C\*]; A23L0001-00 [I,A]; A23L0001-325 [I,C\*]; A23L0001-325 [I,A]

CC 17-4 (Food and Feed Chemistry)

ST food moisture flavor barrier crosslinked biopolymer lipid

IT Sunflower oil

(Cotebar A; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

IT Fats and Glyceridic oils, biological studies

(RPLE70; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

IT Hydrocolloids

(biopolymers containing ortho-methoxyphenol groups; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

IT Bakery products

(biscuits; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

IT Biopolymers

(crosslinked, films; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

IT Beeswax

Bread

Emulsifying agents

Fish

Flavor

Food functional properties

Food processing

Fruit

Lycopersicon esculentum

Oxidation

Permeability

Vegetable

Water vapor

(edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)

- IT Carnauba wax
- Coconut oil
- Enzymes, biological studies
- Olive oil
- Sterols
- Sunflower oil
  - (edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Proteins
  - (egg; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Glycerides, biological studies
  - (feruloylated; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Lipids, biological studies
  - (films; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Fats and Glyceridic oils, biological studies
  - (flakes, PO58; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Food gels
  - (hydrophobic; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Coating materials
  - (impermeable; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Meat
  - (sausage, salami; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Caseins, biological studies
  - (sodium complexes; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Fats and Glyceridic oils, biological studies
  - (solid, MGLA41; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Food
  - (spreads, cheese-yeast extract or -vegetable protein hydrolyzate; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Caseins, biological studies
  - Proteins
    - (vanillin-coupled; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Protein hydrolyzates
  - (vegetable; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT Cheese
  - (yeast extract-containing spread; edible moisture and flavor barrier comprising a crosslinked biopolymer and a lipid film for food products)
- IT 50-99-7, D-Glucose, biological studies      83-46-5,  $\beta$ -Sitosterol

90-05-1D, o-Methoxyphenol, hydrocolloid biopolymers containing  
 121-33-5D, Vanillin, hydrocolloid biopolymers containing  
 121-33-5D, Vanillin, reaction with chitosan  
 1135-24-6D, Ferulic acid, hydrocolloid biopolymers containing  
 4046-52-0, Ethyl ferulate 9000-69-5,  
 Pectin 9001-37-0, Glucose oxidase 9001-62-1,  
 Novozym 435 9003-99-0, Biobake wheat 9012-76-4,  
 Chitosan 9012-76-4D, Chitosan, reaction  
 with vanillin 11042-64-1,  $\gamma$ -Oryzanol 83589-62-2,  
 Gelbond 117628-88-3, Hymono 8903 134633-83-3,  
 Pectinex Ultra SPL

(edible moisture and flavor barrier comprising a crosslinked  
 biopolymer and a lipid film for food products)

IT 7722-84-1, Hydrogen peroxide, biological studies  
 (tomato; edible moisture and flavor barrier comprising a  
 crosslinked biopolymer and a lipid film for food  
 products)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L69 ANSWER 2 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 2

ACCESSION NUMBER: 2004:799601 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 141:313288

TITLE: Polymer composition of proteins, polysaccharides  
 and/or glycerides for use in food products

INVENTOR(S): Bruggeman, Yvonne Evelien; Van Der Hijden,  
 Hendrikus Theodorus W. M.; Ravestein, Peter

PATENT ASSIGNEE(S): Unilever N.V., Neth.; Unilever Plc; Hindustan  
 Lever Limited

SOURCE: PCT Int. Appl., 32 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004083256	A1	20040930	WO 2004-EP2148	20040304
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RM: BW, BY, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BE, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2003-75817 A 20030321

<--

ED Entered STN: 30 Sep 2004

AB Polymer compns. comprises at least 2 building blocks covalently linked via  
 phenolic residues containing a methoxy group positioned ortho with respect to  
 the hydroxyl group, wherein the building blocks are selected from protein (P),  
 glycerides (G) and polysaccharides (S) and wherein the covalent linkage via



phenolic residues is between P-P, S-S, P-S, P-G, G-G, G-S or combinations thereof, characterized in that at least one of the phenolic residues is covalently bonded to a building block via a Schiff's base, show good emulsifying, thickening, encapsulation and stabilizing properties. Hence they are suitable for use in food products, especially emulsions and foams.

IT 9000-69-5D, Pectin, derivs.  
(crosslinked; production of polymer composition of proteins, polysaccharides

and/or glycerides for use in food products)

RN 9000-69-5 HCAPLUS

CN Pectin (CA INDEX NAME)

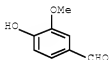
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 121-33-5D, Vanillin, reaction products with ovalbumin

(production of polymer composition of proteins, polysaccharides and/or glycerides for use in food products)

RN 121-33-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)

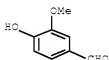


IT 121-33-5, Vanillin 9012-76-4,  
Chitosan

(production of polymer composition of proteins, polysaccharides and/or glycerides for use in food products)

RN 121-33-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



RN 9012-76-4 HCAPLUS

CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI C08B0037-08 [ICM,7]; C08B0037-06 [ICS,7]; C08B0037-00 [ICS,7,C\*];  
C08H0001-00 [ICS,7]

IPCR C08B0037-00 [I,C\*]; C08B0037-00 [I,A]; C08B0037-08 [I,A]; C08H0001-00  
[I,C\*]; C08H0001-00 [I,A]

CC 17-9 (Food and Feed Chemistry)

Section cross-reference(s): 44

IT Ovalbumin

(reaction products with vanillin; production of polymer composition of proteins, polysaccharides and/or glycerides for use in food products)

IT Caseins, biological studies  
 (sodium complexes, reaction products with vanillin;  
 production of polymer composition of proteins, polysaccharides and/or  
 glycerides for use in food products)

IT 9000-69-5D, Pectin, derivs.  
 (crosslinked; production of polymer composition of proteins,  
 polysaccharides  
 and/or glycerides for use in food products)

IT 121-33-5D, Vanillin, reaction products with  
 ovalbumin 121-34-6, Vanillic acid 458-35-5, Coniferol 1135-24-6,  
 Ferulic acid 80498-15-3, Laccase  
 (production of polymer composition of proteins, polysaccharides and/or  
 glycerides for use in food products)

IT 121-33-5, Vanillin 9012-76-4,  
 Chitosan  
 (production of polymer composition of proteins, polysaccharides and/or  
 glycerides for use in food products)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR  
 THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
 RE FORMAT

L69 ANSWER 3 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN DUPLICATE 3

ACCESSION NUMBER: 1993:579750 HCAPLUS Full-text  
 DOCUMENT NUMBER: 119:179750  
 ORIGINAL REFERENCE NO.: 119:32127a, 32130a  
 TITLE: Synergistic food preservatives containing  
 ferulic acids and preservation of foods  
 with them  
 INVENTOR(S): Uemura, Hiroshi  
 PATENT ASSIGNEE(S): Meiju Sangyo Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 05168449	A	19930702	JP 1991-344234	19911226
			<--	
PRIORITY APPLN. INFO.:			JP 1991-344234	19911226
			<--	

ED Entered STN: 30 Oct 1993

AB Food preservatives contain (i) ferulic acids and (ii) organic acids, their  
 salts, and/or chitosan as active ingredients. Food flavor and taste are not  
 damaged by the preservatives. Pickled Chinese cabbage was mixed with ferulic  
 acid 0.016, AcOH 0.048, and AcONa 0.336 weight% and preserved at 15°. The  
 food was edible for 10 days, vs. 3 days, without ferulic acid.

IT 150233-38-8 150276-28-1  
 (food preservatives containing, synergistic)

RN 150233-38-8 HCAPLUS

CN Chitosan, mixt. with 3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid  
 (9CI) (CA INDEX NAME)

CM 1

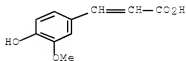
CRN 9012-76-4  
 CMF Unspecified  
 CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 1135-24-6

CMF C10 H10 O4



RN 150276-28-1 HCAPLUS

CN Chitosan, mixt. with acetic acid,  
 3-(4-hydroxy-3-methoxyphenyl)-2-propenoic acid and sodium acetate  
 (9CI) (CA INDEX NAME)

CM 1

CRN 9012-76-4

CMF Unspecified

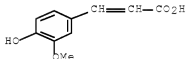
CCI PMS, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CM 2

CRN 1135-24-6

CMF C10 H10 O4



CM 3

CRN 127-09-3

CMF C2 H4 O2 . Na



● Na

CM 4

CRN 64-19-7

CMF C2 H4 O2



IPCI A23L0003-3508 [ICM,5]; A23L0003-3463 [ICS,5]  
 IPCR A23L0003-3463 [I,C\*]; A23L0003-3463 [I,A]; A23L0003-3508 [I,A]  
 CC 17-6 (Food and Feed Chemistry)  
 ST preservative ferulate carboxylate chitosan food;  
 synergistic preservative ferulate chitosan food  
 IT Rice  
 (cooked, preservatives containing ferulate and carboxylates  
 and chitosan for, synergistic)  
 IT Carboxylic acids, biological studies  
 (food preservatives containing ferulate and, synergistic)  
 IT Chinese cabbage  
 (pickled, preservatives containing ferulate and carboxylates  
 and chitosan for, synergistic)  
 IT Food  
 Pickles  
 Seaweed  
 (preservatives containing ferulate and carboxylates and  
 chitosan for, synergistic)  
 IT Fish  
 (kamaboko, preservatives containing ferulate and carboxylates  
 and chitosan for, synergistic)  
 IT Bactericides, Disinfectants, and Antiseptics  
 Fungicides and Fungistats  
 (synergistic, containing ferulate and carboxylates and  
 chitosan, for foods)  
 IT 150233-33-3 150233-34-4 150233-35-5 150233-36-6 150233-37-7  
 150233-38-8 150233-39-9 150276-28-1  
 (food preservatives containing, synergistic)

L69 ANSWER 4 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 2005:612035 HCAPLUS [Full-text](#)  
 DOCUMENT NUMBER: 143:132236  
 TITLE: Process for preparing an edible moisture and  
 flavor barrier for food products  
 INVENTOR(S): Bouwens, Elisabeth Cornelia Maria; Van der Hijden,  
 Hendrikus Theodorus Wilhelmus Maria  
 PATENT ASSIGNEE(S): Unilever N. V., Neth.; Unilever PLC; Hindustan  
 Lever Limited  
 SOURCE: PCT Int. Appl., 15 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO.

DATE

WO 2005063057	A1	20050714	WO 2004-EP13654	20041123
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RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
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EP 1696748	A1	20060906	EP 2004-803416	20041123
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BR 2004016714	A	20070116	BR 2004-16714	20041123
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IN 2006MN00741	A	20070413	IN 2006-MN741	20060623
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PRIORITY APPLN. INFO.:			EP 2003-79173	A 20031223
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			WO 2004-EP13654	W 20041123
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## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

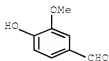
ED Entered STN: 15 Jul 2005

AB The invention relates to a method of preparing of an edible barrier for water and/or flavor transport, including oil transport in a food product wherein a feruloylated compound is at least partly oxidized after applying it to the food product. The barrier is especially useful in food products comprising leaking (moisture or flavor or oil) ingredients such as vegetables (tomato, salad), fruit, bread or fish.

IT 121-33-5D, Vanillin, polymers containing  
(process for preparing an edible moisture and flavor and oil  
barrier for food products)

RN 121-33-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



IT 9600-69-5D, Pectin, feruloylated  
9612-76-4D, Chitosan, feruloylated  
(process for preparing an edible moisture and flavor and oil

barrier for food products)  
 RN 9000-69-5 HCAPLUS  
 CN Pectin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9012-76-4 HCAPLUS  
 CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A23L0003-00 [ICM,7]; A23B0007-00 [ICS,7]; A23B0004-00 [ICS,7];  
 A23L0001-0524 [ICS,7]; A23L0001-052 [ICS,7,C\*]  
 IPCR A21D0002-00 [I,C\*]; A21D0002-00 [I,A]; A21D0015-00 [I,C\*]; A21D0015-00  
 [I,A]; A23B0004-00 [I,C\*]; A23B0004-00 [I,A]; A23B0007-00 [I,C\*];  
 A23B0007-00 [I,A]; A23B0007-16 [I,A]; A23L0001-00 [I,C\*]; A23L0001-00  
 [I,A]; A23L0001-05 [I,C\*]; A23L0001-052 [I,C\*]; A23L0001-0524 [I,A];  
 A23L0001-056 [I,A]; A23L0001-212 [I,C\*]; A23L0001-212 [I,A];  
 A23L0001-325 [I,C\*]; A23L0001-325 [I,A]; A23L0003-00 [I,C\*];  
 A23L0003-00 [I,A]  
 CC 17-4 (Food and Feed Chemistry)  
 ST food product tomato salmon bread moisture flavor oil  
 barrier; water flavor barrier food vegetable fruit bread fish  
 IT Coating materials  
 (impermeable; process for preparing an edible moisture and flavor and  
 oil barrier for food products)  
 IT Bread  
 Fish  
 Flavor  
 Food processing  
 Fruit  
 Oxidation  
 Oxidation  
 Vegetable  
 Water vapor  
 (process for preparing an edible moisture and flavor and oil  
 barrier for food products)  
 IT Enzymes, biological studies  
 (process for preparing an edible moisture and flavor and oil  
 barrier for food products)  
 IT Vegetable  
 (salad materials; process for preparing an edible moisture and flavor  
 and oil barrier for food products)  
 IT Bread  
 (sandwiches containing salmon and tomato; process for preparing an edible  
 moisture and flavor and oil barrier for food products)  
 IT Lycopersicon esculentum  
 (sliced; process for preparing an edible moisture and flavor and  
 oil barrier for food products)  
 IT Salmon  
 (smoked; process for preparing an edible moisture and flavor and  
 oil barrier for food products)  
 IT 50-99-7, Glucose, biological studies 121-33-5D,  
 Vanillin, polymers containing 127-09-3, Sodium acetate  
 1135-24-6, Ferulic acid 7722-84-1, Hydrogen peroxide,  
 biological studies 9003-99-0, Biobake Wheat 9074-19-5, Hydrase  
 (process for preparing an edible moisture and flavor and oil  
 barrier for food products)  
 IT 9000-69-5D, Pectin, feruloylated  
 9012-76-4D, Chitosan, feruloylated  
 (process for preparing an edible moisture and flavor and oil  
 barrier for food products)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 5 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:718371 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 139:208593

TITLE: The complete genome sequence of the Arabidopsis and tomato pathogen *Pseudomonas syringae* pv. tomato DC3000

AUTHOR(S): Buell, C. Robin; Joardar, Vinita; Lindeberg, Magdalen; Selengut, Jeremy; Paulsen, Ian T.; Gwinn, Michelle L.; Dodson, Robert J.; Deboy, Robert T.; Durkin, A. Scott; Kolonay, James F.; Madupu, Ramana; Daugherty, Sean; Brinkac, Lauren; Beanan, Maureen J.; Haft, Daniel H.; Nelson, William C.; Davidsen, Tanja; Zafar, Nikhat; Zhou, Liwei; Liu, Jia; Yuan, Qiaoping; Khouri, Hoda; Fedorova, Nadia; Tran, Bao; Russell, Daniel; Berry, Kristi; Utterback, Teresa; Van Aken, Susan E.; Feldblyum, Tamara V.; D'Ascenzo, Mark; Deng, Wen-Ling; Ramos, Adela R.; Alfano, James R.; Cartinhour, Samuel; Chatterjee, Arun K.; Delaney, Terrence P.; Lazarowitz, Sondra G.; Martin, Gregory B.; Schneider, David J.; Tang, Xiaoyan; Bender, Carol L.; White, Owen; Fraser, Claire M.; Collmer, Alan

CORPORATE SOURCE: The Institute for Genomic Research, Rockville, MD, 20850, USA

SOURCE: Proceedings of the National Academy of Sciences of the United States of America (2003), 100(18), 10181-10186  
CODEN: PNASAG; ISSN: 0027-8424

PUBLISHER: National Academy of Sciences

DOCUMENT TYPE: Journal

LANGUAGE: English

ED Entered STN: 14 Sep 2003

AB The complete genome sequence is reported for the model bacterial pathogen *Pseudomonas syringae* pathovar tomato DC3000 (DC3000), which is pathogenic on tomato and *Arabidopsis thaliana*. The DC3000 genome (6.5 megabases) contains a circular chromosome and two plasmids, which collectively encode 5763 ORFs. The authors identified 298 established and putative virulence genes, including several clusters of genes encoding 31 confirmed and 19 predicted type III secretion system effector proteins. Many of the virulence genes were members of paralogous families and also were proximal to mobile elements, which collectively comprise 7% of the DC3000 genome. The bacterium possesses a large repertoire of transporters for the acquisition of nutrients, particularly sugars, as well as genes implicated in attachment to plant surfaces. Over 12% of the genes are dedicated to regulation, which may reflect the need for rapid adaptation to the diverse environments encountered during epiphytic growth and pathogenesis. Comparative analyses confirmed a high degree of similarity with two sequenced pseudomonads, *Pseudomonas putida* and *Pseudomonas aeruginosa*, yet revealed 1159 genes unique to DC3000, of which 811 lack a known function. The genome sequence is deposited in GenBank/EMBL/DBJ under accession number AE016853-AE016855, and in the RefSeq Genome database under accession number NC\_004578.

IT 508535-64-6 508548-95-6 508562-62-7  
508562-64-9 508571-66-2 508575-62-0  
508582-40-9

(amino acid sequence; complete genome sequence of the *Arabidopsis*

and tomato pathogen *Pseudomonas syringae* pv. tomato DC3000)

RN 508535-64-6 HCAPLUS

CN Lipid A biosynthesis lauroyl acyltransferase (*Pseudomonas syringae* tomato strain DC3000 gene PSPT00182) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 508548-95-6 HCAPLUS

CN Lipid A disaccharide synthase (*Pseudomonas syringae* tomato strain DC3000 gene lpxB) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 508562-62-7 HCAPLUS

CN Feruloyl-CoA-synthetase (*Pseudomonas syringae* tomato strain DC3000 gene fcs) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 508562-64-9 HCAPLUS

CN Vanillin dehydrogenase (*Pseudomonas syringae* tomato strain DC3000 gene vdh) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 508571-66-2 HCAPLUS

CN Lipid A biosynthesis lauroyl acyltransferase (*Pseudomonas syringae* tomato strain DC3000 gene htrB) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 508575-62-0 HCAPLUS

CN Pectin lyase (*Pseudomonas syringae* tomato strain DC3000 gene pnlA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 508582-40-9 HCAPLUS

CN Lipid A ABC transporter, ATP-binding/permease protein (*Pseudomonas syringae* tomato strain DC3000 gene msbA) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 6, 10

IT 508533-86-6 508533-87-7 508533-88-8 508533-89-9 508533-90-2

508533-91-3 508533-92-4 508533-93-5 508533-94-6 508533-95-7

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(amino acid sequence; complete genome sequence of the *Arabidopsis*  
 and tomato pathogen *Pseudomonas syringae* pv. tomato DC3000)

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	508549-69-7	508549-70-0	508549-71-1	508549-72-2	508549-73-3
	508549-74-4	508549-75-5	508549-76-6	508549-77-7	508549-78-8
	508549-79-9	508549-80-2	508549-81-3	508549-82-4	508549-83-5
	508549-84-6	508549-85-7	508549-86-8	508549-87-9	508549-88-0
	508549-89-1	508549-90-4	508549-91-5	508549-92-6	508549-93-7
	508549-94-8	508549-95-9	508549-96-0	508549-97-1	508549-98-2
	508549-99-3	508550-00-3	508550-01-4	508550-02-5	508550-03-6
	508550-04-7	508550-05-8	508550-06-9	508550-07-0	508550-08-1
	508550-09-2	508550-10-5	508550-11-6	508550-12-7	508550-13-8
	508550-14-9	508550-15-0	508550-16-1	508550-17-2	508550-18-3
	508550-19-4	508550-20-7	508550-21-8	508550-22-9	508550-23-0
	508550-24-1	508550-25-2	508550-26-3	508550-27-4	508550-28-5
	508550-29-6	508550-30-9	508550-31-0	508550-32-1	508550-33-2
	508550-34-3	508550-35-4	508550-36-5	508550-37-6	508550-38-7
	508550-39-8	508550-40-1	508550-41-2	508550-42-3	508550-43-4
	508550-44-5	508550-45-6	508550-46-7	508550-47-8	508550-48-9
	508550-49-0	508550-50-3	508550-51-4	508550-52-5	508550-53-6
	508550-54-7	508550-55-8	508550-56-9	508550-57-0	508550-58-1
	(amino acid sequence; complete genome sequence of the <i>Arabidopsis</i> and tomato pathogen <i>Pseudomonas syringae</i> pv. tomato DC3000)				
IT	508562-54-7	508562-55-8	508562-56-9	508562-57-0	508562-58-1
	508562-59-2	508562-60-5	508562-61-6	508562-62-7	
	508562-63-8, GenBank	AA056435	508562-64-9	508562-65-0	
	508562-66-1	508562-67-2	508562-68-3	508562-69-4	508562-70-7
	508562-71-8	508562-72-9	508562-73-0	508562-74-1	508562-75-2
	508562-76-3	508562-77-4	508562-78-5	508562-79-6	508562-80-9
	508562-81-0	508562-82-1	508562-83-2	508562-84-3	508562-85-4
	508562-86-5	508562-87-6	508562-88-7	508562-89-8	508562-90-1
	508562-91-2	508562-92-3	508562-93-4	508562-94-5	508562-95-6
	508562-96-7	508562-97-8	508562-98-9	508562-99-0	508563-00-6
	508563-01-7	508563-02-8	508563-03-9	508563-04-0	508563-05-1
	508563-06-2	508563-07-3	508563-08-4	508563-09-5	508563-10-8
	508563-11-9	508563-12-0	508563-13-1	508563-14-2	508563-15-3
	508563-16-4	508563-17-5	508563-18-6	508563-19-7	508563-20-0
	508563-21-1	508563-22-2	508563-23-3	508563-24-4	508563-25-5
	508563-26-6	508563-27-7	508563-28-8	508563-29-9	508563-30-2
	508563-31-3	508563-32-4	508563-33-5	508563-34-6	508563-35-7
	508563-36-8	508563-37-9	508563-38-0	508563-39-1	508563-40-4
	508563-41-5	508563-42-6	508563-43-7	508563-44-8	508563-45-9
	508563-46-0	508563-47-1	508563-48-2	508563-49-3	508563-50-6
	508563-51-7	508563-52-8	508563-53-9	508563-54-0	508563-55-1
	508563-56-2	508563-57-3	508563-58-4	508563-59-5	508563-60-8
	508563-61-9	508563-62-0	508563-63-1	508563-64-2	508563-65-3
	508563-66-4	508563-67-5	508563-68-6	508563-69-7	508563-70-0
	508563-71-1	508563-72-2, GenBank	AA056544	508563-73-3	
	508563-74-4	508563-75-5	508563-76-6	508563-77-7	508563-78-8
	508563-79-9	508563-80-2	508563-81-3	508563-82-4	508563-83-5
	508563-84-6	508563-85-7	508563-86-8	508563-87-9	508563-88-0
	508563-89-1	508563-90-4	508563-91-5	508563-92-6	508563-93-7
	508563-94-8	508563-95-9	508563-96-0	508563-97-1	508563-98-2
	508563-99-3	508564-00-9	508564-01-0	508564-02-1	508564-03-2
	508564-04-3	508564-05-4	508564-06-5	508564-07-6	508564-08-7
	508564-09-8	508564-10-1	508564-11-2	508564-12-3	508564-13-4
	508564-14-5	508564-15-6	508564-16-7	508564-17-8	508564-18-9
	508564-19-0, GenBank	AA056591	508564-20-3	508564-21-4	
	508564-22-5	508564-23-6	508564-24-7	508564-25-8	508564-26-9
	508564-27-0	508564-28-1	508564-29-2	508564-30-5	508564-31-6

	508564-32-7	508564-33-8	508564-34-9	508564-35-0	508564-36-1
	508564-37-2	508564-38-3	508564-39-4	508564-40-7	508564-41-8
	508564-42-9	508564-43-0	508564-44-1	508564-45-2	508564-46-3
	508564-47-4	508564-48-5	508564-49-6	508564-50-9	508564-51-0
	508564-52-1	508564-53-2	508564-54-3	508564-55-4	508564-56-5
	508564-57-6	508564-58-7	508564-59-8	508564-60-1	508564-61-2
	508564-62-3	508564-63-4	508564-64-5	508564-65-6	508564-66-7
	508564-67-8	508564-68-9	508564-69-0	508564-70-3	508564-71-4
	508564-72-5	508564-73-6	508564-74-7	508564-75-8	508564-76-9
	508564-77-0	508564-78-1	508564-79-2	508564-80-5	508564-81-6,
	GenBank AA056653	508564-82-7	508564-83-8	508564-84-9	
	508564-85-0	508564-86-1	508564-87-2	508564-88-3	508564-89-4
	508564-90-7	508564-91-8	508564-92-9		
	(amino acid sequence; complete genome sequence of the Arabidopsis and tomato pathogen <i>Pseudomonas syringae</i> pv. tomato DC3000)				
II	508569-71-9	508569-72-0	508569-73-1	508569-74-2	508569-75-3
	508569-76-4	508569-77-5	508569-78-6	508569-79-7	508569-80-0
	508569-81-1	508569-82-2	508569-83-3	508569-84-4	508569-85-5
	508569-86-6	508569-87-7	508569-88-8	508569-89-9	508569-90-2
	508569-91-3	508569-92-4	508569-93-5	508569-94-6, GenBank	
	AA057166	508569-95-7	508569-96-8	508569-97-9	508569-98-0
	508569-99-1	508570-00-1	508570-01-2	508570-02-3	508570-03-4
	508570-04-5	508570-05-6	508570-06-7	508570-07-8	508570-08-9
	508570-09-0	508570-10-3	508570-11-4	508570-12-5	508570-13-6
	508570-14-7	508570-15-8	508570-16-9	508570-17-0	508570-18-1
	508570-19-2	508570-20-5	508570-21-6	508570-22-7	508570-23-8
	508570-24-9	508570-25-0, GenBank	AA057197	508570-26-1	
	508570-27-2	508570-28-3	508570-29-4	508570-30-7	508570-31-8
	508570-32-9	508570-33-0	508570-34-1	508570-35-2	508570-36-3
	508570-37-4	508570-38-5	508570-39-6	508570-40-9	508570-41-0
	508570-42-1	508570-43-2	508570-44-3	508570-45-4	508570-46-5
	508570-47-6	508570-48-7	508570-49-8	508570-50-1	508570-51-2
	508570-52-3	508570-53-4	508570-54-5	508570-55-6	508570-56-7
	508570-57-8	508570-58-9	508570-59-0	508570-60-3	508570-61-4
	508570-62-5	508570-63-6	508570-64-7	508570-65-8	508570-66-9
	508570-67-0	508570-68-1	508570-69-2	508570-70-5	508570-71-6
	508570-72-7	508570-73-8	508570-74-9	508570-75-0	508570-76-1
	508570-77-2	508570-78-3	508570-79-4	508570-80-7	508570-81-8
	508570-82-9	508570-83-0	508570-84-1	508570-85-2	508570-86-3
	508570-87-4	508570-88-5	508570-89-6	508570-90-9	508570-91-0
	508570-92-1	508570-93-2	508570-94-3	508570-95-4	508570-96-5
	508570-97-6	508570-98-7	508570-99-8	508571-00-4	508571-01-5
	508571-02-6	508571-03-7	508571-04-8	508571-05-9	508571-06-0
	508571-07-1	508571-08-2	508571-09-3	508571-10-6	508571-11-7
	508571-12-8	508571-13-9	508571-14-0	508571-15-1	508571-16-2
	508571-17-3	508571-18-4	508571-19-5	508571-20-8	508571-21-9
	508571-22-0	508571-23-1	508571-24-2	508571-25-3	508571-26-4
	508571-27-5	508571-28-6	508571-29-7	508571-30-0	508571-31-1
	508571-32-2	508571-33-3	508571-34-4	508571-35-5	508571-36-6
	508571-37-7	508571-38-8	508571-39-9	508571-40-2	508571-41-3
	508571-42-4	508571-43-5	508571-44-6	508571-45-7	508571-46-8
	508571-47-9	508571-48-0	508571-49-1	508571-50-4	508571-51-5
	508571-52-6	508571-53-7	508571-54-8	508571-55-9	508571-56-0
	508571-57-1	508571-58-2	508571-59-3	508571-60-6	508571-61-7
	508571-62-8	508571-63-9	508571-64-0	508571-65-1	
	508571-66-2	508571-67-3	508571-68-4	508571-69-5	
	508571-70-8	508571-71-9	508571-72-0	508571-73-1	508571-74-2
	508571-75-3	508571-76-4	508571-77-5	508571-78-6	508571-79-7
	508571-80-0	508571-81-1	508571-82-2	508571-83-3	508571-84-4
	508571-85-5	508571-86-6	508571-87-7	508571-88-8	508571-89-9

	508571-90-2,	GenBank AA057362	508571-91-3	508571-92-4	
	508571-93-5	508571-94-6	508571-95-7	508571-96-8	508571-97-9
	508571-98-0,	GenBank AA057370	508571-99-1	508572-00-7	
	508572-01-8	508572-02-9	508572-03-0	508572-04-1	508572-05-2
	508572-06-3	508572-07-4	508572-08-5	508572-09-6	
	(amino acid sequence; complete genome sequence of the Arabidopsis and tomato pathogen <i>Pseudomonas syringae</i> pv. tomato DC3000)				
IT	508574-49-0	508574-50-3	508574-51-4	508574-52-5	508574-53-6
	508574-54-7	508574-55-8	508574-56-9	508574-57-0	508574-58-1
	508574-59-2	508574-60-5	508574-61-6	508574-62-7	508574-63-8
	508574-64-9	508574-65-0	508574-66-1	508574-67-2	508574-68-3
	508574-69-4	508574-70-7	508574-71-8	508574-72-9	508574-73-0
	508574-74-1	508574-75-2	508574-76-3	508574-77-4	508574-78-5
	508574-79-6	508574-80-9	508574-81-0	508574-82-1	508574-83-2
	508574-84-3	508574-85-4	508574-86-5	508574-87-6	508574-88-7
	508574-89-8	508574-90-1	508574-91-2	508574-92-3	508574-93-4
	508574-94-5	508574-95-6	508574-96-7	508574-97-8	508574-98-9
	508574-99-0	508575-00-6	508575-01-7	508575-02-8	508575-03-9
	508575-04-0	508575-05-1	508575-06-2	508575-07-3	508575-08-4
	508575-09-5	508575-10-8	508575-11-9	508575-12-0	508575-13-1
	508575-14-2	508575-15-3	508575-16-4	508575-17-5	508575-18-6
	508575-19-7	508575-20-0	508575-21-1	508575-22-2	508575-23-3
	508575-24-4	508575-25-5	508575-26-6	508575-27-7	508575-28-8
	508575-29-9	508575-30-2	508575-31-3	508575-32-4	508575-33-5
	508575-34-6	508575-35-7	508575-36-8	508575-37-9	508575-38-0
	508575-39-1	508575-40-4	508575-41-5	508575-42-6	508575-43-7
	508575-44-8	508575-45-9	508575-46-0	508575-47-1	508575-48-2
	508575-49-3	508575-50-6	508575-51-7	508575-52-8	508575-53-9
	508575-54-0	508575-55-1	508575-56-2	508575-57-3	508575-58-4
	508575-59-5	508575-60-8	508575-61-9,	GenBank AA057733	
	508575-62-0	508575-63-1	508575-64-2	508575-65-3	
	508575-66-4	508575-67-5	508575-68-6	508575-69-7	508575-70-0
	508575-71-1	508575-72-2	508575-73-3	508575-74-4	508575-75-5
	508575-76-6	508575-77-7	508575-78-8	508575-79-9	508575-80-2
	508575-81-3	508575-82-4	508575-83-5	508575-84-6	508575-85-7
	508575-86-8	508575-87-9	508575-88-0	508575-89-1	508575-90-4
	508575-91-5	508575-92-6	508575-93-7	508575-94-8	508575-95-9
	508575-96-0	508575-97-1	508575-98-2	508575-99-3	508576-00-9
	508576-01-0	508576-02-1	508576-03-2	508576-04-3	508576-05-4
	508576-06-5	508576-07-6	508576-08-7	508576-09-8	508576-10-1
	508576-11-2	508576-12-3	508576-13-4	508576-14-5	508576-15-6
	508576-16-7	508576-17-8	508576-18-9	508576-19-0	508576-20-3
	508576-21-4	508576-22-5	508576-23-6	508576-24-7	508576-25-8
	508576-26-9	508576-27-0	508576-28-1	508576-29-2	508576-30-5
	508576-31-6	508576-32-7	508576-33-8	508576-34-9	508576-35-0
	508576-36-1	508576-37-2	508576-38-3	508576-39-4	508576-40-7
	508576-41-8	508576-42-9,	GenBank AA057814	508576-43-0	
	508576-44-1	508576-45-2	508576-46-3	508576-47-4	508576-48-5
	508576-49-6	508576-50-9	508576-51-0	508576-52-1	508576-53-2
	508576-54-3	508576-55-4	508576-56-5,	GenBank AA057828	
	508576-57-6	508576-58-7	508576-59-8	508576-60-1	508576-61-2
	508576-62-3	508576-63-4	508576-64-5	508576-65-6	508576-66-7
	508576-67-8	508576-68-9	508576-69-0	508576-70-3	508576-71-4
	508576-72-5	508576-73-6	508576-74-7	508576-75-8	508576-76-9
	508576-77-0	508576-78-1	508576-79-2	508576-80-5	508576-81-6
	508576-82-7	508576-83-8	508576-84-9	508576-85-0	508576-86-1
	508576-87-2				
	(amino acid sequence; complete genome sequence of the Arabidopsis and tomato pathogen <i>Pseudomonas syringae</i> pv. tomato DC3000)				
IT	508581-66-6	508581-67-7	508581-68-8	508581-69-9	508581-70-2

508581-71-3	508581-72-4	508581-73-5	508581-74-6	508581-75-7
508581-76-8	508581-77-9	508581-78-0	508581-79-1	508581-80-4
508581-81-5	508581-82-6	508581-83-7	508581-84-8	508581-85-9
508581-86-0	508581-87-1	508581-88-2	508581-89-3	508581-90-6
508581-91-7	508581-92-8	508581-93-9	508581-94-0	508581-95-1
508581-96-2	508581-97-3	508581-98-4	508581-99-5	508582-00-1
508582-01-2	508582-02-3	508582-03-4	508582-04-5	508582-05-6
508582-06-7	508582-07-8	508582-08-9	508582-09-0	508582-10-3
508582-11-4	508582-12-5	508582-13-6	508582-14-7	508582-15-8
508582-16-9	508582-17-0	508582-18-1	508582-19-2	508582-20-5
508582-21-6	508582-22-7	508582-23-8	508582-24-9	508582-25-0
508582-26-1	508582-27-2	508582-28-3	508582-29-4	508582-30-7
508582-31-8	508582-32-9	508582-33-0	508582-34-1	508582-35-2
508582-36-3	508582-37-4	508582-38-5	508582-39-6	
508582-40-9	508582-41-0	508582-42-1	508582-43-2	
508582-44-3	508582-45-4	508582-46-5	508582-47-6	508582-48-7
508582-49-8	508582-50-1	508582-51-2	508582-52-3	508582-53-4
508582-54-5	508582-55-6	508582-56-7	508582-57-8	508582-58-9
508582-59-0	508582-60-3	508582-61-4	508582-62-5	508582-63-6
508582-64-7	508582-65-8	508582-66-9	508582-67-0	508582-68-1
508582-69-2	508582-70-5	508582-71-6	508582-72-7	508582-73-8
508582-74-9	508582-75-0	508582-76-1	508582-77-2	508582-78-3
508582-79-4	508582-80-7	508582-81-8	508582-82-9	GenBank
AAO58454	508582-83-0	508582-84-1	508582-85-2	508582-86-3
508582-87-4	508582-88-5	508582-89-6	508582-90-9	508582-91-0
508582-92-1	508582-93-2	508582-94-3	508582-95-4	508582-96-5
508582-97-6	508582-98-7	GenBank	AAO58470	508582-99-8
508583-00-4	508583-01-5	508583-02-6	508583-03-7	508583-04-8
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508583-25-3	508583-26-4	508583-27-5	508583-28-6	508583-29-7
508583-30-0	508583-31-1	508583-32-2	508583-33-3	508583-34-4
508583-35-5	508583-36-6	508583-37-7	508583-38-8	508583-39-9
508583-40-2	508583-41-3	508583-42-4	508583-43-5	GenBank
AAO58515	508583-44-6	508583-45-7	508583-46-8	508583-47-9
508583-48-0	508583-49-1	508583-50-4	508583-51-5	508583-52-6
508583-53-7	508583-54-8	508583-55-9	508583-56-0	508583-57-1
508583-58-2	508583-59-3	508583-60-6	508583-61-7	508583-62-8
508583-63-9	508583-64-0	508583-65-1	508583-66-2	508583-67-3
508583-68-4	508583-69-5	508583-70-8	508583-71-9	508583-72-0
508583-73-1	508583-74-2	508583-75-3	508583-76-4	508583-77-5
GenBank	AAO58549	508583-78-6	508583-79-7	GenBank
AAO58551				AAO58551
508583-80-0	508583-81-1	508583-82-2	508583-83-3	508583-84-4
508583-85-5	508583-86-6	508583-87-7	508583-88-8	508583-89-9
508583-90-2	508583-91-3	508583-92-4	GenBank	AAO58564
508583-93-5	508583-94-6	508583-95-7	508583-96-8	508583-97-9
508583-98-0	508583-99-1	508584-00-7	508584-01-8	508584-02-9
508584-03-0	508584-04-1			

(amino acid sequence; complete genome sequence of the Arabidopsis and tomato pathogen *Pseudomonas syringae* pv. tomato DC3000)

OS.CITING REF COUNT: 325 THERE ARE 325 CAPLUS RECORDS THAT CITE THIS RECORD (325 CITINGS)

REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

DOCUMENT NUMBER: 136:145954  
 TITLE: Genome sequence of the plant pathogen *Ralstonia solanacearum*  
 AUTHOR(S): Salanoubat, M.; Genin, S.; Artiguenave, F.; Gouzy, J.; Mangenot, S.; Ariat, M.; Billault, A.; Brottier, P.; Camus, J. C.; Cattolico, L.; Chandler, M.; Choise, N.; Claudel-Renard, C.; Cunnac, S.; Demange, N.; Gaspin, C.; Lavie, M.; Moisan, A.; Robert, C.; Saurin, W.; Schiex, T.; Siguier, P.; Thebault, P.; Whalen, M.; Wincker, P.; Levy, M.; Weissenbach, J.; Boucher, C. A.  
 CORPORATE SOURCE: Genoscope and CNRS UMR-8030, Evry, 91057, Fr.  
 SOURCE: Nature (London, United Kingdom) (2002), 415(6871), 497-502  
 CODEN: NATUAS; ISSN: 0028-0836  
 PUBLISHER: Nature Publishing Group  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 18 Feb 2002

AB *Ralstonia solanacearum* is a devastating, soil-borne plant pathogen with a global distribution and an unusually wide host range. It is a model system for the dissection of mol. determinants governing pathogenicity. The complete genome sequence and its anal. of strain GMI1000 is presented. The 5.8-megabase (Mb) genome is organized into two replicons: a 3.7-Mb chromosome and a 2.1-Mb megaplasmid. Both replicons have a mosaic structure providing evidence for the acquisition of genes through horizontal gene transfer. Regions containing genetically mobile elements associated with the percentage of G+C bias may have an important function in genome evolution. The genome encodes many proteins potentially associated with a role in pathogenicity. In particular, many putative attachment factors were identified. The complete repertoire of type III secreted effector proteins can be studied. Over 40 candidates were identified. Comparison with other genomes suggests that bacterial plant pathogens and animal pathogens harbor distinct arrays of specialized type III-dependent effectors.

IT 394309-97-8 394328-73-5 394331-22-7  
 394332-08-2 394332-09-3 394338-61-5  
 (amino acid sequence; genome sequence of the plant pathogen *Ralstonia solanacearum*)

RN 394309-97-8 HCAPLUS  
 CN LIPID-A-DISACCHARIDE SYNTHASE PROTEIN (*Ralstonia solanacearum* strain GMI1000 gene lpxB) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 394328-73-5 HCAPLUS  
 CN ATP SYNTHASE C CHAIN (LIPID-BINDING) TRANSMEMBRANE PROTEIN (*Ralstonia solanacearum* strain GMI1000 gene atpE) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 394331-22-7 HCAPLUS  
 CN PECTININ ESTERASE (PECTIN METHYLESTERASE) TRANSMEMBRANE PROTEIN (*Ralstonia solanacearum* strain GMI1000 gene pme) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 394332-08-2 HCAPLUS  
 CN VANILLIN DEHYDROGENASE OXIDOREDUCTASE PROTEIN (*Ralstonia solanacearum* strain GMI1000 gene vdh) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
 RN 394332-09-3 HCAPLUS

CN FERULOYL-COA SYNTHETASE PROTEIN (Ralstonia solanacearum strain GM1000  
gene fcs) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 394338-61-5 HCAPLUS

CN POLYGALACTURONASE PRECURSOR (PECTINASE) SIGNAL PEPTIDE PROTEIN  
(Ralstonia solanacearum strain GM1000 gene pgIA) (9CI) (CA INDEX  
NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 3-3 (Biochemical Genetics)

Section cross-reference(s): 6, 10, 11

IT	394307-84-7	394307-85-8	394307-86-9	394307-87-0	394307-88-1
	394307-89-2	394307-90-5	394307-91-6	394307-92-7	394307-93-8
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	394307-99-4	394308-00-0	394308-01-1	394308-02-2	394308-03-3
	394308-04-4	394308-05-5	394308-06-6	394308-07-7	394308-08-8
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	394309-24-1	394309-25-2	394309-26-3	394309-27-4	394309-28-5
	394309-29-6	394309-30-9	394309-31-0	394309-32-1	394309-33-2
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	394310-09-9	394310-10-2	394310-11-3	394310-12-4	394310-13-5
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	394310-19-1	394310-20-4	394310-21-5	394310-22-6	394310-23-7

(amino acid sequence; genome sequence of the plant pathogen

*Ralstonia solanacearum*)

IT	394327-04-9	394327-05-0	394327-06-1	394327-07-2	394327-08-3
	394327-09-4	394327-10-7	394327-11-8	394327-12-9	394327-13-0
	394327-14-1	394327-15-2	394327-16-3	394327-17-4	394327-18-5
	394327-19-6	394327-20-9	394327-21-0	394327-22-1	394327-23-2
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	394327-34-5	394327-35-6	394327-36-7	394327-37-8	394327-38-9
	394327-39-0	394327-40-3	394327-41-4	394327-42-5	394327-43-6
	394327-44-7	394327-45-8	394327-46-9	394327-47-0	394327-48-1
	394327-49-2	394327-50-5	394327-51-6	394327-52-7	394327-53-8
	394327-54-9	394327-55-0	394327-56-1	394327-57-2	394327-58-3
	394327-59-4	394327-60-7	394327-61-8	394327-62-9	394327-63-0
	394327-64-1	394327-65-2	394327-66-3	394327-67-4	394327-68-5
	394327-69-6	394327-70-9	394327-71-0	394327-72-1	394327-73-2
	394327-74-3	394327-75-4	394327-76-5	394327-77-6	394327-78-7
	394327-79-8	394327-80-1	394327-81-2	394327-82-3	394327-83-4
	394327-84-5	394327-85-6	394327-86-7	394327-87-8	394327-88-9
	394327-89-0	394327-90-3	394327-91-4	394327-92-5	394327-93-6
	394327-94-7	394327-95-8	394327-96-9	394327-97-0	394327-98-1
	394327-99-2	394328-00-8	394328-01-9	394328-02-0	394328-03-1
	394328-04-2	394328-05-3	394328-06-4	394328-07-5	394328-08-6
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	394328-14-4	394328-15-5	394328-16-6	394328-17-7	394328-18-8
	394328-19-9	394328-20-2	394328-21-3	394328-22-4	394328-23-5
	394328-24-6	394328-25-7	394328-26-8	394328-27-9	394328-28-0
	394328-29-1	394328-30-4	394328-31-5	394328-32-6	394328-33-7
	394328-34-8	394328-35-9	394328-36-0	394328-37-1	394328-38-2
	394328-39-3	394328-40-6	394328-41-7	394328-42-8	394328-43-9
	394328-44-0	394328-45-1	394328-46-2	394328-47-3	394328-48-4
	394328-49-5	394328-50-8	394328-51-9	394328-52-0	394328-53-1
	394328-54-2	394328-55-3	394328-56-4	394328-57-5	394328-58-6
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	394328-77-9	394328-78-0	394328-79-1	394328-80-4	394328-81-5
	394328-82-6	394328-83-7	394328-84-8	394328-85-9	394328-86-0
	394328-87-1	394328-88-2	394328-89-3	394328-90-6	394328-91-7
	394328-92-8	394328-93-9	394328-94-0	394328-95-1	394328-96-2
	394328-97-3	394328-98-4	394328-99-5	394329-00-1	394329-01-2
	394329-02-3	394329-03-4	394329-04-5	394329-05-6	394329-06-7
	394329-07-8	394329-08-9	394329-09-0	394329-10-3	394329-11-4
	394329-12-5	394329-13-6	394329-14-7	394329-15-8	394329-16-9
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	394329-32-9	394329-33-0	394329-34-1	394329-35-2	394329-36-3
	394329-37-4	394329-38-5	394329-39-6	394329-40-9	394329-41-0
	394329-42-1				

(amino acid sequence; genome sequence of the plant pathogen

*Ralstonia solanacearum*)

IT	394329-43-2	394329-44-3	394329-45-4	394329-46-5	394329-47-6
	394329-48-7	394329-49-8	394329-50-1	394329-51-2	394329-52-3
	394329-53-4	394329-54-5	394329-55-6	394329-56-7	394329-57-8
	394329-58-9	394329-59-0	394329-60-3	394329-61-4	394329-62-5
	394329-63-6	394329-64-7	394329-65-8	394329-66-9	394329-67-0
	394329-68-1	394329-69-2	394329-70-5	394329-71-6	394329-72-7
	394329-73-8	394329-74-9	394329-75-0	394329-76-1	394329-77-2



394329-78-3	394329-79-4	394329-80-7	394329-81-8	394329-82-9
394329-83-0	394329-84-1	394329-85-2	394329-86-3	394329-87-4
394329-88-5	394329-89-6	394329-90-9	394329-91-0	394329-92-1
394329-93-2	394329-94-3	394329-95-4	394329-96-5	394329-97-6
394329-98-7	394329-99-8	394330-00-8	394330-01-9	394330-02-0
394330-03-1	394330-04-2	394330-05-3	394330-06-4	394330-07-5
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394330-18-8	394330-19-9	394330-20-2	394330-21-3	394330-22-4
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394331-03-4	394331-04-5	394331-05-6	394331-06-7	394331-07-8
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394331-18-1	394331-19-2	394331-20-5	394331-21-6	
394331-22-7	394331-23-8	394331-24-9	394331-25-0	
394331-26-1	394331-27-2	394331-28-3	394331-29-4	394331-30-7
394331-31-8	394331-32-9	394331-33-0	394331-34-1	394331-35-2
394331-36-3	394331-37-4	394331-38-5	394331-39-6	394331-40-9
394331-41-0	394331-42-1	394331-43-2	394331-44-3	394331-45-4
394331-46-5	394331-47-6	394331-48-7	394331-49-8	394331-50-1
394331-51-2	394331-52-3	394331-53-4	394331-54-5	394331-55-6
394331-56-7	394331-57-8	394331-58-9	394331-59-0	394331-60-3
394331-61-4	394331-62-5	394331-63-6	394331-64-7	394331-65-8
394331-66-9	394331-67-0	394331-68-1	394331-69-2	394331-70-5
394331-71-6	394331-72-7	394331-73-8	394331-74-9	394331-75-0
394331-76-1	394331-77-2	394331-78-3	394331-79-4	394331-80-7
394331-81-8				

(amino acid sequence; genome sequence of the plant pathogen  
Ralstonia solanacearum)

IT	394331-82-9	394331-83-0	394331-84-1	394331-85-2	394331-86-3
	394331-87-4	394331-88-5	394331-89-6	394331-90-9	394331-91-0
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	394331-97-6	394331-98-7	394331-99-8	394332-00-4	394332-01-5
	394332-02-6	394332-03-7	394332-04-8	394332-05-9	394332-06-0
	394332-07-1	394332-08-2	394332-09-3		
	394332-10-6	394332-11-7	394332-12-8	394332-13-9	394332-14-0
	394332-15-1	394332-16-2	394332-17-3	394332-18-4	394332-19-5
	394332-20-8	394332-21-9	394332-22-0	394332-23-1	394332-24-2
	394332-25-3	394332-26-4	394332-27-5	394332-28-6	394332-29-7
	394332-30-0	394332-31-1	394332-32-2	394332-33-3	394332-34-4
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394334-20-4				

(amino acid sequence; genome sequence of the plant pathogen

*Ralstonia solanacearum*)

IT	394336-74-4	394336-75-5	394336-76-6	394336-77-7	394336-78-8
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(amino acid sequence; genome sequence of the plant pathogen

*Ralstonia solanacearum*)

OS.CITING REF COUNT: 379 THERE ARE 379 CAPLUS RECORDS THAT CITE THIS RECORD (379 CITINGS)

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 7 OF 22 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 2002:968085 HCAPLUS Full-text

DOCUMENT NUMBER: 138:220646

TITLE: Glycosidically bound flavour compounds in hop  
(*Humulus lupulus* L.): 1. Enzymatical liberation of aglycones

AUTHOR(S): Kollmannsberger, H.; Nitz, S.  
CORPORATE SOURCE: Department Lebensmittel und Ernährung, Lehrstuhl fuer Chem-Techn. Analyse u. Chem. Lebensmitteltechnologie, Freising-Weihenstephan, D-85350, Germany

SOURCE: AFS, Advances in Food Sciences (2002),  
24(3), 106-115  
CODEN: AAFSBE

PUBLISHER: PSP - Parlar Scientific Publications

DOCUMENT TYPE: Journal

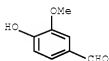
LANGUAGE: German

ED Entered STN: 23 Dec 2002

AB The efficiency of different enzyme preps. (almond  $\beta$ -glucosidase, glucosidase from *Aspergillus niger*, pectinase, hesperidinase,  $\alpha$ -amylase, a amylase-mixture, a hemicellulase preparation) for the cleavage of glycosidically bound flavor compds. of hops (*Humulus lupulus* L.) was investigated. Enzymes were added to either synthetic B-D-glucosides (phenyl- and octyl-) or hop exts. The hop exts. were made by extraction with a water-methanol mixture, or by hot-water extraction and subsequent adsorption on an Amberlite XAD-2 resin. The isolated aglycons were investigated by gas chromatog. - mass spectrometry. Main compds. among the aglycons were 3-methylbutan-2-ol, 3- and 2-methylbutane-1-ol, 3-methyl-2-butene-1-ol, 3-methylpentane-2-ol, 3(Z)-hexenol,

hexanol, 1-octen-3-ol, benzylalc., 2-phenylethanol, linalool,  $\alpha$ -terpineol, methylsalicylate, 2,6-dimethylocta-2,7-diene-1,6-diol, 3-hydroxy-7,8-dihydro- $\beta$ -ionol, 3-hydroxy-5,6-epoxy- $\beta$ -ionol, vomifoliol and 7,8-dihydro-vomifoliol. Addnl. small amts. of 3-hydroxy- $\beta$ -damascone, a precursor of the sensorial important  $\beta$ -damascenone could be found among the aglycons. Best yields of aglycons could be achieved with glucosidase from *Aspergillus niger* and with rapidase (a hemicellulase preparation with glycosidic activities). Com. available  $\alpha$ -amylase was found to be not suitable for hydrolysis of hop glycosides.

IT 121-33-5, Vanillin  
(enzymic liberation of aglycons from glycosidically bound flavor compds. in hop)  
RN 121-33-5 HCAPLUS  
CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



IT 9032-75-1, Pectinase  
(enzymic liberation of aglycons from glycosidically bound flavor compds. in hop)  
RN 9032-75-1 HCAPLUS  
CN Polygalacturonase (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 17-13 (Food and Feed Chemistry)  
IT 71-36-3, Butan-1-ol, processes 71-41-0, Pentan-1-ol, processes 75-65-0, 2-Methyl-propan-2-ol, processes 78-70-6, Linalool 78-92-2, Butan-2-ol 98-55-5,  $\alpha$ -Terpineol 100-51-6, Benzylalcohol, processes 106-24-1, Geraniol 108-11-2, 4-Methyl-pentan-2-ol 108-93-0, Cyclohexanol, processes 115-18-4 119-36-8, Methylsalicylate 121-33-5, Vanillin 121-34-6, Vanillic acid 123-08-0, 4-Hydroxy-benzaldehyde 123-51-3, 3-Methyl-butan-1-ol 137-32-6, 2-Methyl-butan-1-ol 501-94-0, Tyrosol 556-82-1, 3-Methyl-2-buten-1-ol 565-60-6, 3-Methyl-pentan-2-ol 584-02-1, Pentan-3-ol 598-75-4, 3-Methyl-butan-2-ol 928-96-1, cis-3-Hexenol 1135-24-6, Ferulic acid 1321-27-3, Phenylethanol 1464-44-4, Phenyl  $\beta$ -D-glucoside 2628-17-3, 4-Vinylphenol 3391-86-4, 1-Octen-3-ol 5502-74-9, p-Menth-1-ene-7,8-diol 6032-29-7, Pentan-2-ol 7400-08-0, p-Hydroxy-cinnamic acid 7786-61-0, 4-Vinylguaiaacol 10473-14-0, 3-Methyl-3-buten-2-ol 14398-34-6, 3-Hydroxy- $\beta$ -ionone 23526-45-6, Vomifoliol 25917-35-5, Hexanol 29656-58-4, Hydroxy benzoic acid 29836-26-8, Octyl  $\beta$ -D-glucoside 35734-61-3, 3-Hydroxy- $\beta$ -damascone 38274-01-0, 3-Hydroxy-5,6-epoxy- $\beta$ -ionone 51079-52-8, 4,6-Dimethyl-heptan-2-ol 131544-22-4 398453-07-1  
(enzymic liberation of aglycons from glycosidically bound flavor compds. in hop)  
IT 9000-90-2,  $\alpha$ -Amylase 9000-92-4, Amylase 9025-56-3, Hemicellulase 9032-75-1, Pectinase 9033-06-1, Glucosidase 37213-47-1, Hesperidinase

(enzymic liberation of aglycons from glycosidically bound flavor compds. in hop)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (5 CITINGS)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 8 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2001:31308 HCAPLUS Full-text

DOCUMENT NUMBER: 134:91147

TITLE: A method for the improvement of transport across adaptable semi-permeable barriers

INVENTOR(S): Cevc, Gregor

PATENT ASSIGNEE(S): Idea Innovative Dermale Applikationen G.m.b.H., Germany

SOURCE: PCT Int. Appl., 94 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001001962	A1	20010111	WO 1999-EP4659	19990705
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JP 2003503442	T	20030128	JP 2001-507458	20000705
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EE 2002000008	A	20030415	EE 2002-8	20000705

AU 779765	B2	20050210	AU 2000-61557	20000705
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## ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

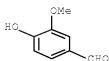
ED Entered STN: 12 Jan 2001

AB The invention relates to a method, a kit and a device for controlling the flux of penetrants across an adaptable semi-permeable porous barrier, the method comprising the steps of: preparing a formulation by suspending or dispersing said penetrants in a polar liquid in the form of fluid droplets surrounded by a membrane-like coating of one or several layers, said coating comprising at least two kinds of forms of amphiphilic substances with a tendency to aggregate; said penetrants being able to transport agents through the pores of said barrier or to enable agent permeation through the pores of said barrier after penetrants have entered the pores, selecting a dose amount of said penetrants to be applied on a predetd. area of said barrier to control the flux of said penetrants across said barrier, and applying the selected dose amount of said formulation containing said penetrants onto said area of said porous barrier. Highly adaptable complex droplets (ultradeformable vesicles or Transfersomes) were prepared containing soybean phosphatidylcholine, Na cholate, 3H-labeled DPPC and phosphate buffer.

IT 121-33-5, Vanillin 9000-69-5,  
Pectin 9012-76-4, Chitosan  
(improvement of transport across adaptable semi-permeable barriers)

RN 121-33-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



RN 9000-69-5 HCAPLUS  
CN Pectin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 9012-76-4 HCAPLUS  
CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A61K0009-127 [ICM,7]; A61K0009-70 [ICS,7]  
IPCR A61F0002-28 [I,C\*]; A61F0002-28 [I,A]; A61F0002-02 [I,C\*]; A61F0002-02 [I,A]; A61K0009-127 [I,C\*]; A61K0009-127 [I,A]; A61K0009-70 [I,C\*]; A61K0009-70 [I,A]; A61K0031-045 [I,C\*]; A61K0031-045 [I,A]; A61K0031-05 [I,A]; A61K0031-055 [I,A]; A61K0031-14 [I,C\*]; A61K0031-14 [I,A]; A61K0031-185 [I,C\*]; A61K0031-19 [I,A]; A61K0031-192 [I,A]; A61K0031-28 [I,C\*]; A61K0031-305 [I,A]; A61K0031-452 [I,C\*]; A61K0031-452 [I,A]; A61K0045-00 [I,C\*]; A61K0045-00 [I,A]; A61K0047-02 [I,C\*]; A61K0047-02 [I,A]; A61K0047-08 [I,C\*]; A61K0047-08 [I,A]; A61K0047-10 [I,C\*]; A61K0047-10 [I,A]; A61K0047-12 [I,C\*]; A61K0047-12 [I,A]; A61K0047-14 [I,C\*]; A61K0047-14 [I,A]; A61K0047-16 [I,C\*]; A61K0047-18 [I,A]; A61K0047-22 [I,C\*]; A61K0047-22 [I,A]; A61K0047-26 [I,C\*]; A61K0047-26 [I,A]; A61K0047-28 [I,C\*]; A61K0047-28 [I,A]; A61K0047-32 [I,C\*]; A61K0047-32 [I,A]; A61K0047-34 [I,C\*]; A61K0047-34 [I,A]; A61K0047-36 [I,C\*]; A61K0047-36 [I,A]; A61K0047-38 [I,C\*]; A61K0047-38 [I,A]; A61K0047-42 [I,C\*]; A61K0047-42 [I,A]; A61K0047-46 [I,C\*]; A61K0047-46 [I,A]; A61L0027-00 [I,C\*]; A61L0027-22 [I,A]; A61L0027-26 [I,A]; A61L0027-34 [I,A]; A61L0027-48 [I,A]; A61P0001-00 [I,C\*]; A61P0001-00 [I,A]; A61P0001-16 [I,A]; A61P0001-18 [I,A]; A61P0003-00 [I,C\*]; A61P0003-14 [I,A]; A61P0007-00 [I,C\*]; A61P0007-00 [I,A]; A61P0011-00 [I,C\*]; A61P0011-00 [I,A]; A61P0013-00 [I,C\*]; A61P0013-12 [I,A]; A61P0017-00 [I,C\*]; A61P0017-00 [I,A]; A61P0017-02 [I,A]; A61P0019-00 [I,C\*]; A61P0019-00 [I,A]; A61P0021-00 [I,C\*]; A61P0021-04 [I,A]; A61P0025-00 [I,C\*]; A61P0025-02 [I,A]; A61P0025-08 [I,A]; A61P0027-00 [I,C\*]; A61P0027-02 [I,A]; A61P0027-16 [I,A]; A61P0029-00 [I,C\*]; A61P0029-00 [I,A]; A61P0031-00 [I,C\*]; A61P0031-00 [I,A]; A61P0031-04 [I,A]; C12Q0001-00 [I,C\*]; C12Q0001-00 [I,A]; C12Q0001-18 [I,C\*]; C12Q0001-18 [I,A]  
CC 63-6 (Pharmaceuticals)  
IT 50-81-7, Ascorbic acid, biological studies 57-09-0, Cetrimerium bromide 57-15-8, Chlorbutanol 59-02-9,  $\alpha$ -Tocopherol 59-02-9D,  $\alpha$ -Tocopherol, acyl derivs. 64-17-5, Ethanol, biological studies 67-63-0, Isopropanol, biological studies 69-72-7, Salicylic acid, biological studies 77-95-2, Quinic acid 79-10-7D, Acrylic acid, polymers 79-41-4D, Methacrylic acid, polymers 86-74-8, Carbazole 90-05-1, Guaiacol 97-53-0, Eugenol 99-50-3, Protocatechuic acid 100-51-6, Benzyl alcohol, biological studies 107-15-3D, Ethylenediamine, derivs. 108-95-2D, Phenol, derivs., biological studies 119-13-1,  $\delta$ -Tocopherol 119-13-1D,  $\delta$ -Tocopherol, acyl derivs. 121-33-5, Vanillin 121-79-9, Propyl gallate 122-39-4, Diphenylamine, biological studies 123-31-9, Hydroquinone, biological studies 128-37-0, Bht, biological studies 137-66-6, L-Ascorbic acid,

- 6-palmitate 148-03-8,  $\beta$ -Tocopherol 148-03-8D,  
 $\beta$ -Tocopherol, acyl derivs. 149-91-7, Gallic acid, biological  
studies 476-66-4, Ellagic acid 500-38-9, Nordihydroguaiaretic acid  
530-57-4, Syringic acid 1338-39-2, Sorbitan monolaurate 2495-84-3,  
L-Ascorbic acid, 6-oleate 3934-16-5D, Methallylsulfonic acid,  
derivs. 4197-69-7, 2-Butylhydroquinone 5725-96-2, Dimethylamine  
oxide 7616-22-0,  $\gamma$ -Tocopherol 7616-22-0D,  
 $\gamma$ -Tocopherol, acyl derivs. 9000-07-1, Carrageenan 9000-30-0,  
Guar gum 9000-65-1, Gum tragacanth 9000-69-5,  
Pectin 9002-88-4, Polyethylene 9002-89-5 9003-39-8, Pvp  
9004-32-4 9004-34-6D, Cellulose, derivs., biological studies  
9004-61-9, Hyaluronic acid 9004-62-0, Hydroxyethyl cellulose  
9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methyl  
cellulose 9004-67-5, Methyl cellulose 9004-81-3, Polyethylene  
glycol laurate 9004-96-0, Polyethylene glycol oleate 9004-99-3,  
Myrj 45 9005-32-7, Alginic acid 9005-64-5, Tween 20 9005-65-6,  
Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan  
9016-45-9, Polyethylene glycol nonylphenyl ether 9063-89-2  
9086-85-5, Poly(hydroxypropyl methacrylate) 11138-66-2, Xanthan gum  
12041-76-8, Dichlorobenzyl alcohol 16690-40-7, L-Ascorbyl 6-laurate  
25013-16-5, Bha 25014-41-9, Polyacrylonitrile 25249-16-5  
25322-68-3, Peg 26746-38-3, Di-tert-butylphenol 29349-22-2,  
Chlorobenzyl alcohol 33425-76-2, L-Ascorbic acid, 6-myristate  
50546-45-7, Octaethylene glycol monoisotridecyl ether 53188-07-1,  
Trolox 85261-20-7, Decanoyl-N-methylglucamide 87246-72-8,  
D-Glucitol, 1-deoxy-1-[methyl(1-oxododecyl)amino]- 88306-53-0,  
1,4-Dioxane, 2,5-dione, 3,6-dimethyl-, polymer with  
 $\alpha$ -hydro- $\omega$ -hydroxy-Poly(oxy-1,2-ethanediy) 90522-12-6,  
Poly(N-propylmethacrylamide) 106392-12-5, Poloxamer 121869-32-7  
148081-72-5, 1-O-Hexyl-2,3,5-trimethylhydroquinone 158606-68-9,  
Polyspartamide 191997-39-4  
(improvement of transport across adaptable semi-permeable barriers)  
IT 50-06-6, Phenobarbital, biological studies 50-33-9, Phenylbutazone,  
biological studies 50-78-2, Acetylsalicylic acid 50-99-7,  
D-Glucose, biological studies 52-67-5, Penicillamine 53-86-1,  
Indomethacin 54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1,  
Chlorhexidine 55-68-5, Phenylmercuric nitrate 59-05-2,  
Methotrexate 59-50-7, 4-Chloro-3-methylphenol 60-00-4, Edta,  
biological studies 61-68-7, Mefenamic acid 62-38-4, Phenylmercuric  
acetate 62-56-6, Thiourea, biological studies 65-85-0, Benzoic  
acid, biological studies 69-93-2, Uric acid, biological studies  
70-18-8, Glutathione, biological studies 70-30-4, Hexachlorophene  
71-00-1D, L-Histidine, thio derivs., biological studies 73-22-3D,  
Tryptophan, metabolites 81-24-3D, Taurocholic acid, salts  
81-25-4D, Cholic acid, salts 83-44-3D, Deoxycholic acid, salts  
83-89-6, Quinacrine 88-04-0, p-Chloro-m-xylene 90-34-6,  
Primaquine 94-13-3, Propylparaben 94-18-8, Benzylparaben  
94-26-8, Butylparaben 94-41-7D, Chalcone, derivs. 97-23-4,  
Dichlorophene 99-76-3, Methylparaben 102-98-7, Phenylmercuric  
borate 103-90-2, Acetaminophen 110-44-1, Sorbic acid 120-47-8,  
Ethylparaben 123-03-5, Cetylpyridinium chloride 129-20-4,  
Oxyphenbutazone 138-14-7, Desferal 143-19-1, Sodium oleate  
151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 327-97-9,  
Chlorogenic acid 331-39-5, Caffeic acid 360-65-6D,  
Glycodeoxycholic acid, salts 446-86-6, Azathioprine 475-31-0D,  
Glycocholic acid, salts 484-78-6, 3-Hydroxykynurenine 490-79-9,  
Gentisic acid 516-50-7D, Taurodeoxycholic acid, salts 525-66-6,  
Propranolol 530-59-6, Sinapic acid 530-78-9, Flufenamic acid  
538-71-6, Phenododecinium bromide 548-93-6, 3-Hydroxyanthranilic



acid 616-91-1, N-Acetylcysteine 621-82-9, Cinnamic acid, biological studies 629-25-4, Sodium laurate 635-65-4, Bilirubin, biological studies 822-17-3, Sodium linoleate 1135-24-6, Ferulic acid 1319-77-3, Cresol 1951-25-3, Amiodarone 3650-09-7, Carnosic acid 5677-55-4, Ubiquinol-10 5957-80-2, Carnosol 7235-40-7,  $\beta$ -Carotene 7347-25-3, Sodium taurate 7631-90-5, Sodium bisulfite 7681-57-4, Sodium metabisulfite 7747-53-7, 9001-05-2, Catalase 9002-92-0, Poly(oxy-1,2-ethanediyl),  $\alpha$ -dodecyl- $\omega$ -hydroxy- 9013-66-5, Glutathione peroxidase 9031-37-2, Ceruloplasmin 9054-89-1, Superoxide dismutase 10540-29-1, Tamoxifen 15307-86-5, Diclofenac 15687-27-1, Ibuprofen 16409-34-0, Sodium glycodeoxycholate 18175-45-6, Sodium elaidate 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8, Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22494-42-4, Diflunisal 23288-49-5, Probuco 25429-38-3, Hydroxycinnamic acid 25655-41-8, Povidone-iodine 28088-64-4, Aminosalicyclic acid 29122-68-7, Atenolol 36322-90-4, Piroxicam 37640-71-4, Aprindine 55101-76-3, Chloro-8-hydroxyquinoline 55985-32-5, Nicardipine 63675-72-9, Nisoldipine 66085-59-4, Nimodipine 73584-61-9, Carnosolic acid 75530-68-6, Nilvadipine 77207-49-9, 77400-65-8, Asocainol 108605-69-2, Avenanthramide 1 110101-67-2, U74006F 118457-14-0, Nebivolol 154992-25-3, Avenanthramide 2

(improvement of transport across adaptable semi-permeable barriers)

OS.CITING REF COUNT: 5 THERE ARE 5 CAPLUS RECORDS THAT CITE THIS RECORD (7 CITINGS)  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 9 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2000:456858 HCAPLUS Full-text

DOCUMENT NUMBER: 133:94512

TITLE: Improved formulation for topical non-invasive application in vivo

INVENTOR(S): Cevc, Gregor

PATENT ASSIGNEE(S): Idea Innovative Dermale Applikationen G.m.b.H., Germany

SOURCE: PCT Int. Appl., 73 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000038653	A1	20000706	WO 1998-EP8421	19981223
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W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, ZW RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
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HR 2001000309	B1	20050630		
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US 7175850	B2	20070213		
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PRIORITY APPLN. INFO.:			WO 1998-EP8421	A 19981223
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			KR 2001-706708	A3 20010529
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			US 2001-887493	A1 20010622
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ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

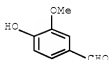
OTHER SOURCE(S): MARPAT 133:94512

ED Entered STN: 07 Jul 2000

AB A formulation comprises mol. arrangements capable of penetrating pores in a barrier, owing to penetrant adaptability, despite the fact that the average diameter of the pores is smaller than the average penetrant diameter, provided that the penetrants can transport agents or cause permeation through the pores after penetrants have entered pores. The formulation comprises at least 1 consistency builder in an amount that increases the formulation to maximally 5 Nm/s so that spreading over is enabled. The formulation also contains 1

antioxidant in an amount that reduces the increase of oxidation index to <100% per 6 mo and/or at least 1 microbicide in an amount that reduces the bacterial count of 1 million germs added/g of total mass of the formulation to <100 in the case of aerobic bacteria, to <10 in the case of entero-bacteria, and to <1 in the case of *Pseudomonas aeruginosa* or *Staphylococcus aureus*, after a period of 4 days. Thus, a composition contained soybean phosphatidylcholine 347, Tween-80 623, sodium dodecyl sulfate 30, benzyl alc. 50, clobetasol 17-propionate 25 and pH 6.5 50 mM phosphate buffer 9000 mg.

IT 121-33-5, Vanillin 9000-69-5,  
Pectin 9012-76-4, Chitosan  
(penetrating formulation for topical non-invasive application in vivo)  
RN 121-33-5 HCAPLUS  
CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



RN 9000-69-5 HCAPLUS  
CN Pectin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*  
RN 9012-76-4 HCAPLUS  
CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A61K0009-127 [ICM,6]  
IPCR A61K0009-10 [I,C\*]; A61K0009-10 [I,A]; A61K0009-127 [I,C\*];  
A61K0009-127 [I,A]; A61K0031-16 [I,C\*]; A61K0031-16 [I,A]; A61K0031-56 [I,C\*]; A61K0031-56 [I,A]; A61K0031-57 [I,C\*]; A61K0031-57 [I,A];  
A61K0031-58 [I,C\*]; A61K0031-58 [I,A]; A61K0047-02 [I,C\*]; A61K0047-02 [I,A]; A61K0047-10 [I,C\*]; A61K0047-10 [I,A]; A61K0047-12 [I,C\*];  
A61K0047-12 [I,A]; A61K0047-14 [I,C\*]; A61K0047-14 [I,A]; A61K0047-16 [I,C\*]; A61K0047-18 [I,A]; A61K0047-20 [I,C\*]; A61K0047-20 [I,A];  
A61K0047-22 [I,C\*]; A61K0047-22 [I,A]; A61K0047-24 [I,C\*]; A61K0047-24 [I,A]; A61K0047-26 [I,C\*]; A61K0047-26 [I,A]; A61K0047-28 [I,C\*];  
A61K0047-28 [I,A]; A61K0047-32 [I,C\*]; A61K0047-32 [I,A]; A61K0047-34 [I,C\*]; A61K0047-34 [I,A]; A61K0047-36 [I,C\*]; A61K0047-36 [I,A];  
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A61P0013-12 [I,A]; A61P0017-00 [I,C\*]; A61P0017-00 [I,A]; A61P0017-06 [I,A]; A61P0017-14 [I,A]; A61P0019-00 [I,C\*]; A61P0019-00 [I,A];  
A61P0019-02 [I,A]; A61P0021-00 [I,C\*]; A61P0021-00 [I,A]; A61P0025-00 [I,C\*]; A61P0025-08 [I,A]; A61P0027-00 [I,C\*]; A61P0027-00 [I,A];  
A61P0027-02 [I,A]; A61P0029-00 [I,C\*]; A61P0029-00 [I,A]; A61P0031-00 [I,C\*]; A61P0031-12 [I,A]; A61P0031-22 [I,A]

CC 63-6 (Pharmaceuticals)  
Section cross-reference(s): 1  
IT Castor oil

(hydrogenated, ethoxylated; penetrating formulation for topical non-invasive application in vivo)

IT Amines, biological studies

Betaines  
 Ceramides  
 Cerebrosides  
 Collagens, biological studies  
 Fatty acids, biological studies  
 Gangliosides  
 Gelatins, biological studies  
 Glycolipids  
 Glycosides  
   Lipids, biological studies  
 Lysophospholipids  
 Phenols, biological studies  
 Phosphatidic acids  
 Phosphatidylcholines, biological studies  
 Phosphatidylethanolamines, biological studies  
 Phosphatidylglycerols  
 Phosphatidylinositols  
 Phosphatidylserines  
 Phospholipids, biological studies  
 Plasmalogens  
 Polymers, biological studies  
 Polyoxoalkylenes, biological studies  
 Polysiloxanes, biological studies  
 Sphingomyelins  
 Sphingosines  
 Sulfatides  
 Tocopherols  
   (penetrating formulation for topical non-invasive application in vivo)  
 IT 50-06-6, Phenobarbital, biological studies 50-33-9, Phenylbutazone, biological studies 50-78-2, Acetylsalicylic acid 50-81-7, Ascorbic Acid, biological studies 50-99-7, Glucose, biological studies 52-67-5, Penicillamine 53-86-1, Indomethacin 54-05-7, Chloroquine 54-64-8, Thiomersal 55-56-1, Chlorhexidine 55-68-5, Phenylmercuric nitrate 56-81-5, Glycerol, biological studies 57-15-8, Chlorbutanol 59-02-9,  $\alpha$ -Tocopherol 59-05-2, Methotrexate 59-50-7, 4-Chloro-m-cresol 60-00-4, EDTA, biological studies 61-68-7, Mefenamic acid 62-38-4, Phenylmercuric acetate 62-56-6, Thiourea, biological studies 64-17-5, Ethyl alcohol, biological studies 65-85-0, Benzoic acid, biological studies 67-63-0, Isopropyl alcohol, biological studies 67-68-5D, DMSO, alkyl derivs. 69-72-7, Salicylic Acid, biological studies 69-93-2, Uric acid, biological studies 70-18-8, Glutathione, biological studies 70-30-4, Hexachlorophene 81-24-3D, salts 81-25-4D, salts 83-44-3D, salts 83-89-6, Quinacrine 86-74-8, Carbazole 89-65-6 90-05-1, Guaiacol 90-34-6, Primaquine 94-13-3, Propylparaben 94-18-8, Benzylparaben 94-26-8, Butylparaben 97-23-4, Dichlorophene 99-50-3, Protocatechuic Acid 99-76-3, Methylparaben 100-51-6, Benzyl alcohol, biological studies 102-98-7, Phenylmercuric borate 103-90-2, Acetaminophen 107-15-3D, Ethylenediamine, derivs. 107-21-1, Ethylene glycol, biological studies 110-27-0, Isopropyl myristate 110-44-1, Sorbic acid 112-53-8, 1-Dodecanol 112-80-1, Oleic acid, biological studies 118-42-3, Hydroxychloroquine 119-13-1,  $\delta$ -Tocopherol 120-47-8, Ethylparaben 121-33-5, Vanillin 121-79-9, Propyl Gallate 122-39-4, Diphenylamine, biological studies 123-03-5, Cetylpyridinium chloride 123-31-9, Hydroquinone, biological studies 128-37-0, BHT, biological studies 129-20-4, Oxyphenbutazone 137-66-6 138-14-7, Desferal 141-78-6, EtOAc, biological studies 143-19-1, Sodium oleate 143-28-2, Oleyl alcohol

148-03-8,  $\beta$ -Tocopherol 149-91-7, Gallic Acid, biological studies 151-41-7, Lauryl sulfate 302-95-4, Sodium deoxycholate 327-97-9, Chlorogenic acid 331-39-5, Caffeic acid 360-65-6D, salts 446-86-6, Azathioprine 475-31-0D, salts 476-66-4, Ellagic Acid 484-78-6, 3-Hydroxykynurenine 490-79-9, Gentisic acid 500-38-9, Nordihydroguaiaretic Acid 516-50-7D, salts 525-66-6, Propranolol 530-57-4, Syringic Acid 530-59-6, Sinapic acid 530-78-9, Flufenamic acid 534-61-2, IsoChlorogenic acid 538-71-6, Phenodocinium bromide 548-93-6, 3-Hydroxyanthranilic acid 616-91-1, N-Acetylcysteine 621-82-9, Cinnamic acid, biological studies 629-25-4, Sodium laurate 635-65-4, Bilirubin, biological studies 822-17-3, Sodium linoleate 1118-68-9D, Dimethylglycine, alkyl derivs. 1135-24-6, Ferulic acid 1319-77-3, Cresol 1643-20-5, Dodecyltrimethylamine oxide 1948-33-0, tert-Butylhydroquinone 1951-25-3, Amiodarone 2002-22-4D, derivs. 2495-84-3 3650-09-7, Carnosic acid 4353-06-4 5432-30-4 5677-55-4, Ubiquinol-10 5957-80-2, Carnosol 7235-40-7,  $\beta$ -Carotene 7347-25-3, Sodium taurate 7616-22-0,  $\gamma$ -Tocopherol 7631-90-5, Sodium bisulphite 7681-57-4, Sodium metabisulfite 7747-53-7 9000-07-1, Carrageenan 9000-30-0, Guar-gum 9000-65-1, Tragacanth 9000-69-5, Pectin 9001-05-2, Catalase 9002-88-4, Polyethylene 9002-89-5, Polyvinyl alcohol 9002-92-0, Polyethylene glycol dodecyl ether 9002-96-4 9003-39-8, Polyvinylpyrrolidone 9004-32-4, Carboxymethyl cellulose sodium salt 9004-34-6D, Cellulose, derivs., biological studies 9004-61-9, Hyaluronic Acid 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropylmethyl cellulose 9004-67-5, Methyl cellulose 9004-98-2, Polyethylene glycol oleyl ether 9004-99-3, Myrj 45 9005-32-7, Alginate acid 9005-64-5, Tween 20 9005-65-6, Tween 80 9012-36-6, Agarose 9012-76-4, Chitosan 9013-66-5, Glutathione peroxidase 9036-19-5, Polyethylene glycol octylphenyl ether 9043-30-5, Polyethylene glycol isotridecyl ether 9054-89-1, Superoxide dismutase 9086-85-5, Poly(hydroxypropyl) methacrylate 10540-29-1, Tamoxifen 11138-66-2, Xanthan 12041-76-8, Dichlorobenzylalcohol 15307-86-5, Diclofenac 15687-27-1, Ibuprofen 16409-34-0, Sodium glycodeoxycholate 16690-40-7 18175-45-6, Sodium elaidate 18472-51-0, Chlorhexidine gluconate 18683-91-5, Ambroxol 19767-45-4, Mesna 20283-92-5, Rosmarinic acid 20902-45-8, Penicillamine disulfide 21829-25-4, Nifedipine 22071-15-4, Ketoprofen 22204-53-1, Naproxen 22494-42-4, Diflunisal 23288-49-5, Probuco 25013-16-5, BHA 25014-41-9, Polyacrylonitrile 25249-16-5 25322-68-3, PEG 25429-38-3, Coumaric acid 25655-41-8, Povidone-iodine 26570-48-9, Polyethylene glycol-diacylate 26746-38-3, Di-tert-butylphenol 27306-76-9, Polyethylene glycol cetyl stearyl ether 27306-79-2, Polyethylene glycol myristyl ether 29122-68-7, Atenolol 29349-22-2, Chlorobenzyl alcohol 33425-76-2 36322-90-4, Piroxicam 36413-60-2, Quinic acid 37640-71-4, Aprindine 53188-07-1, Trolox 53584-19-3 55985-32-5, Nicardipine 59227-89-3, Azone 63675-72-9, Nisoldipine 66085-59-4, Nimodipine 68047-06-3, Hydroxytamoxifen 68555-46-4 75530-68-6, Nilvadipine 77400-65-8, Asocainol 85261-20-7, Decanoyl N-methylglucamide 87246-72-8 88306-53-0 90522-12-6 91729-95-2, Rosmaridinophenol 99716-88-8, Methallylsulfonic acid homopolymer 106392-12-5, Poloxamer 110101-67-2, U74006F 118457-14-0, Nebivolol 121869-32-7 148081-72-5, 1-O-Hexyl-2,3,5-trimethylhydroquinone (penetrating formulation for topical non-invasive application in vivo)

OS.CITING REF COUNT: 6 THERE ARE 6 CAPLUS RECORDS THAT CITE THIS

REFERENCE COUNT: 3 RECORD (10 CITINGS)  
THERE ARE 3 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN THE  
RE FORMAT

L69 ANSWER 10 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
ACCESSION NUMBER: 1996:297270 HCAPLUS Full-text  
DOCUMENT NUMBER: 124:341158  
ORIGINAL REFERENCE NO.: 124:63369a,63372a  
TITLE: High-performance liquid  
chromatographic-electrospray mass spectrometric  
analysis of phenolic acids and aldehydes  
AUTHOR(S): Gioacchini, Anna Maria; Roda, Aldo; Galletti,  
Guido Carlo; Bocchini, Paola; Manetta, Anna  
Chiara; Baraldini, Mario  
CORPORATE SOURCE: Department of Pharmaceutical Sciences, University  
of Bologna, via Belmeloro 6, Bologna, 40126, Italy  
SOURCE: Journal of Chromatography, A (1996),  
730(1 + 2), 31-37  
CODEN: JCRAEY; ISSN: 0021-9673  
PUBLISHER: Elsevier  
DOCUMENT TYPE: Journal  
LANGUAGE: English

ED Entered STN: 18 May 1996

AB The present work describes the development of an HPLC-electrospray mass spectrometric method for the anal. of phenolic acids and aldehydes. These compds. are important for the quality of foods and feeds, such as dietary fiber supplements, wine and lignocellulose byproducts. Good separation was obtained with a Ph column (3 µm particle size, 150 mm+3.9 mm I.D.), using MeOH-H<sub>2</sub>O (30:70, volume/volume) as the mobile phase with 0.01% CH<sub>3</sub>COOH and 0.2 mM tetra-Et ammonium iodide as the ion pairing agent, at a flow-rate of 0.3 mL/min. This system permits post column splitting of the eluate for anal. by electrospray-mass spectrometry with a flow-rate of 11 µl/min. This new method is extremely sensitive and less than 6 pg/inj of the studied phenols can be identified and quantified. This method was applied to standard compds. as well as to components of high-fiber dietary supplements (primarily wheat bran), cornmeal, and oat bran.

IT 9000-69-5, Pectin  
(HPLC-electrospray mass spectrometric anal. of phenolic acids and aldehydes)

RN 9000-69-5 HCAPLUS

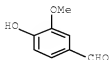
CN Pectin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IT 121-33-5, Vanillin  
(HPLC-electrospray mass spectrometric anal. of phenolic acids and aldehydes)

RN 121-33-5 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



CC 17-1 (Food and Feed Chemistry)  
 IT 9000-69-5, Pectin  
 (HPLC-electrospray mass spectrometric anal. of phenolic acids and aldehydes)  
 IT 99-96-7, p-Hydroxybenzoic acid, analysis 121-33-5,  
 Vanillin 121-34-6, Vanillic acid 123-08-0, p-Hydroxybenzaldehyde  
 134-96-3, Syringaldehyde 149-91-7, Gallic acid, analysis 156-38-7,  
 p-Hydroxyphenylacetic acid 530-57-4, Syringic acid 1135-24-6,  
 Ferulic acid 7400-08-0, p-Coumaric acid  
 (HPLC-electrospray mass spectrometric anal. of phenolic acids and aldehydes)  
 OS.CITING REF COUNT: 19 THERE ARE 19 CAPLUS RECORDS THAT CITE THIS RECORD (19 CITINGS)

L69 ANSWER 11 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1995:741061 HCAPLUS Full-text  
 DOCUMENT NUMBER: 123:142366  
 ORIGINAL REFERENCE NO.: 123:25353a,25356a  
 TITLE: Food preservatives containing Propionibacterium bacteriocins, sugars, alcohols, and carboxylates  
 Yajima, Mizuo  
 INVENTOR(S): Asama Kasei Kk, Japan  
 PATENT ASSIGNEE(S): Jpn. Kokai Tokkyo Koho, 9 pp.  
 SOURCE: CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07115950	A	19950509	JP 1993-289749	19931027
			<--	
JP 3040295	B2	20000515		
PRIORITY APPLN. INFO.:			JP 1993-289749	19931027
			<--	

ED Entered STN: 17 Aug 1995

AB A preservative contains a bacteriocin produced by Propionibacterium and  $\geq 1$  compound selected from the group comprising carboxylates, fatty acid esters, amino acids, peptides, sugars, essential oils, and alcs. For example, a bacteriocin 0.3 and Na acetate 0.5 % by weight were added to a hamburger mixture for preservation.

IT 9012-76-4, Chitosan  
 (food preservatives containing bacteriocins and carboxylates and)  
 RN 9012-76-4 HCAPLUS  
 CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A23L0003-3526 [ICM,6]; A23L0003-3463 [ICM,6,C\*]  
 IPCR A23L0003-3463 [I,C\*]; A23L0003-3526 [I,A]; C12P0001-04 [I,C\*];  
 C12P0001-04 [I,A]; C12R0001-01 [N,A]

CC 17-6 (Food and Feed Chemistry)  
 IT 50-21-5, Lactic acid, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, Cystine, biological studies 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 74-79-3, Arginine, biological studies 77-92-9, biological studies 87-69-4, biological studies 109-52-4, Valeric acid, biological studies 110-15-6, Butanedioic acid,

biological studies 110-17-8, 2-Butenedioic acid (E)-, biological studies 110-94-1, Pentanedioic acid 124-04-9, Hexanedioic acid, biological studies 127-17-3, Pyruvic acid, biological studies 144-62-7, Ethanedioic acid, biological studies 331-39-5, Caffeic acid 499-44-5, Hinokitiol 621-82-9, Cinnamic acid, biological studies 685-73-4D, D-Galacturonic acid, oligo- 1135-24-6, Ferulic acid 6915-15-7, Malic acid 9001-63-2, Lysozyme 25104-18-1, Polylysine

(food preservatives containing bacteriocins and carboxylates)

IT 56-81-5D, 1,2,3-Propanetriol, esters with fatty acids 57-55-6D, 1,2-Propanediol, esters with fatty acids 64-17-5, Ethanol, biological studies 110-44-1, Sorbic acid 151-41-7, Lauryl sulfate 9000-69-5, Pectin 9012-76-4, Chitosan

(food preservatives containing bacteriocins and carboxylates and)

OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE THIS RECORD (3 CITINGS)

L69 ANSWER 12 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:741060 HCAPLUS Full-text  
 DOCUMENT NUMBER: 123:142365  
 ORIGINAL REFERENCE NO.: 123:25353a,25356a  
 TITLE: Food preservatives containing Leuconostoc bacteriocins, sugars, alcohols, and carboxylates  
 INVENTOR(S): Yajima, Mizuo  
 PATENT ASSIGNEE(S): Asama Kasei Kk, Japan  
 SOURCE: Jpn. Kokai Tokyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07115949	A	19950509	JP 1993-289748	19931027
			<--	
JP 3040294	B2	20000515	JP 1993-289748	19931027
			<--	

PRIORITY APPLN. INFO.:

ED Entered STN: 17 Aug 1995

AB A preservative contains a bacteriocin produced by Leuconostoc and  $\geq 1$  compound selected from the group comprising carboxylates, fatty acid esters, amino acids, peptides, sugars, essential oils, and alcs. For example, a bacteriocin 0.3 and Na acetate 0.5 % by weight were added to a hamburger mixture for preservation.

IT 9012-76-4, Chitosan

(food preservatives containing bacteriocins and carboxylates and)

RN 9012-76-4 HCAPLUS

CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A23L0003-3526 [ICM,6]; A23L0003-3463 [ICM,6,C\*]

IPCR A23L0003-3463 [I,C\*]; A23L0003-3526 [I,A]; C12P0001-04 [I,C\*];

C12P0001-04 [I,A]; C12R0001-01 [N,A]

CC 17-6 (Food and Feed Chemistry)

IT 50-21-5, Lactic acid, biological studies 56-40-6, Glycine, biological studies 56-41-7, Alanine, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, Cystine, biological studies 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 72-18-4, Valine, biological studies 72-19-5,



Threonine, biological studies 74-79-3, Arginine, biological studies 77-92-9, biological studies 87-69-4, biological studies 109-52-4, Valeric acid, biological studies 110-15-6, Butanedioic acid, biological studies 110-17-8, 2-Butenedioic acid (E)-, biological studies 110-94-1, Pentanedioic acid 124-04-9, Hexanedioic acid, biological studies 127-17-3, Pyruvic acid, biological studies 144-62-7, Ethanedioic acid, biological studies 331-39-5, Caffeic acid 499-44-5, Hinokitiol 621-82-9, Cinnamic acid, biological studies 685-73-4D, Galacturonic acid, oligo- 1135-24-6, Fernalic acid 6915-15-7, Malic acid 9001-63-2, Lysozyme 25104-18-1, Polylysine  
 (food preservatives containing bacteriocins and carboxylates)  
 IT 56-81-5D, 1,2,3-Propanetriol, esters with fatty acids 57-55-6D, 1,2-Propanediol, esters with fatty acids 64-17-5, Ethanol, biological studies 110-44-1, Sorbic acid 151-41-7, Lauryl sulfate 9000-69-5, Pectin 9012-76-4, Chitosan  
 (food preservatives containing bacteriocins and carboxylates and)  
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L69 ANSWER 13 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN  
 ACCESSION NUMBER: 1995:741059 HCAPLUS Full-text  
 DOCUMENT NUMBER: 123:142364  
 ORIGINAL REFERENCE NO.: 123:25353a,25356a  
 TITLE: Food preservatives containing Lactobacillus bacteriocins, sugars, alcohols, and carboxylates  
 INVENTOR(S): Kanetani, Kazuo; Oshimura, Masao; Harada, Masayuki; Yajima, Mizuo  
 PATENT ASSIGNEE(S): Tamon Shuzo Kk, Japan; Asama Kasei Kk  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 07115948	A	19950509	JP 1993-289747	19931027
			<--	
JP 3040293	B2	20000515		
PRIORITY APPLN. INFO.:			JP 1993-289747	19931027
			<--	

ED Entered STN: 17 Aug 1995

AB A preservative contains a bacteriocin produced by Lactobacillus and  $\geq 1$  compound selected from the group comprising carboxylates, amino acids, peptides, sugars oils, and alcs. For example, a bacteriocin 0.3 and Na acetate 0.5 % by weight were added to a hamburger mixture for preservation.

IT 9012-76-4, Chitosan

(food preservatives containing bacteriocins and carboxylates and)

RN 9012-76-4 HCAPLUS

CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IPCI A23L0003-3526 [ICM,6]; A23L0003-3463 [ICM,6,C\*]

IPCR A23L0003-3463 [I,C\*]; A23L0003-3526 [I,A]; C12P0001-04 [I,C\*]; C12P0001-04 [I,A]; C12R0001-225 [N,A]

CC 17-6 (Food and Feed Chemistry)

Section cross-reference(s): 10

IT 50-21-5, Lactic acid, biological studies 56-40-6, Glycine,

biological studies 56-41-7, Alanine, biological studies 56-87-1, L-Lysine, biological studies 56-89-3, Cystine, biological studies 64-18-6, Formic acid, biological studies 64-19-7, Acetic acid, biological studies 72-18-4, Valine, biological studies 72-19-5, Threonine, biological studies 74-79-3, Arginine, biological studies 77-92-9, biological studies 87-69-4, biological studies 109-52-4, Valeric acid, biological studies 110-15-6, Butanedioic acid, biological studies 110-17-8, 2-Butenedioic acid (E)-, biological studies 110-94-1, Pentanedioic acid 124-04-9, Hexanedioic acid, biological studies 127-17-3, Pyruvic acid, biological studies 144-62-7, Ethanedioic acid, biological studies 331-39-5, Caffeic acid 499-44-5, Hinokitiol 621-82-9, Cinnamic acid, biological studies 685-73-4D, D-Galacturonic acid, oligo- 1135-24-6, Ferulic acid 6915-15-7, Malic acid 9001-63-2, Lysozyme 25104-18-1, Polylysine

(food preservatives containing bacteriocins and carboxylates)

IT 56-81-5, 1,2,3-Propanetriol, biological studies 57-55-6, 1,2-Propanediol, biological studies 64-17-5, Ethanol, biological studies 151-41-7, Sorbic acid 151-41-7, Lauryl sulfate 9000-69-5, Pectin 9012-76-4, Chitosan

(food preservatives containing bacteriocins and carboxylates and)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L69 ANSWER 14 OF 22 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:840265 HCAPLUS Full-text

DOCUMENT NUMBER: 123:337971

ORIGINAL REFERENCE NO.: 123:60661a,60664a

TITLE: Influence of alkaline pre-treatments on the cell wall components of wheat straw

AUTHOR(S): Sun, Runcang; Mark Lawther, J.; Banks, W. B.

CORPORATE SOURCE: School Agricultural and Forest Sciences, University Wales, Bangor/Gwynedd, LL57 2UW, UK

SOURCE: Industrial Crops and Products (1995), 4(2), 127-45

CODEN: ICRDEW; ISSN: 0926-6690

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

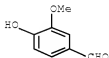
LANGUAGE: English

ED Entered STN: 07 Oct 1995

AB The effects of alkaline pre-treatments of wheat straw have been examined in detail. In particular, treatments with increasing amts. of sodium hydroxide at a range of temps. and exposure times have been investigated. A number of other alkaline or oxidizing agents have also been utilized and briefly assessed. Optimal conditions for delignification and dissoln. of hemicellulosic polysaccharides were found to be pre-treatment with 1.5% sodium hydroxide for 144 h at 20°C. This resulted in release of 60% and 80% of lignin and hemicellulose, resp. The residues of the pre-treated wheat straw were sequentially extracted with 0.25% ammonium oxalate for the isolation of pectin, acidic sodium chlorite solution for delignification and 24% potassium hydroxide with 2% boric acid (2 h at 20°C) for the determination of remaining hemicellulose and  $\alpha$ -cellulose. The yields were determined by gravimetric anal. and expressed as a proportion of the starting material. It was found that xylose was the major sugar constituent in all the hemicellulose fractions and the hydrolyzates obtained from pre-treatment, while glucose and galactose were present as minor components. The content of arabinose was higher in all the pre-treatment hydrolyzates than in hemicellulose fractions isolated from the residues, whereas the relative amount of xylose in remaining hemicellulose was higher than in the hydrolyzates material. The content of uronic acid and the range of mol. wts. both in remaining hemicellulose and in hydrolyzate

fractions were also studied. The contents of phenolic acids and aldehydes remaining both in 0.5 h pre-treated (1.5% sodium hydroxide) wheat straw hemicellulose and cellulose were 0.15%.

IT 121-33-5, Vanillin  
(influence of alkaline pre-treatments on the cell wall components of wheat straw)  
RN 121-33-5 HCAPLUS  
CN Benzaldehyde, 4-hydroxy-3-methoxy- (CA INDEX NAME)



IT 9000-69-5, Pectins  
(influence of alkaline pre-treatments on the cell wall components of wheat straw)  
RN 9000-69-5 HCAPLUS  
CN Pectin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 17-11 (Food and Feed Chemistry)

IT 50-99-7, Glucose, biological studies 58-86-6, Xylose, biological studies 59-23-4, Galactose, biological studies 99-50-3, Protocatechuic acid 121-33-5, Vanillin 121-34-6, Vanillic acid 134-96-3, Syringaldehyde 147-81-9, Arabinose 149-91-7, Gallic acid, biological studies 498-02-2, Acetovanillone 530-57-4, Syringic acid 621-82-9, Cinnamic acid, biological studies 1135-24-6, Ferulic acid 3615-41-6, Rhamnose 25429-38-3, Coumaric acid 28777-87-9, Hydroxybenzaldehyde 29656-58-4, Hydroxybenzoic acid  
(influence of alkaline pre-treatments on the cell wall components of wheat straw)  
IT 9000-69-5, Pectins 9004-34-6, Cellulose, processes 9005-53-2, Lignin, processes 9034-32-6, Hemicellulose  
(influence of alkaline pre-treatments on the cell wall components of wheat straw)

OS.CITING REF COUNT: 81 THERE ARE 81 CAPLUS RECORDS THAT CITE THIS RECORD (81 CITINGS)

L69 ANSWER 15 OF 22 HCAPLUS COPYRIGHT 2010 ACS ON STN

ACCESSION NUMBER: 1995:690652 HCAPLUS [Full-text](#)

DOCUMENT NUMBER: 123:226311

ORIGINAL REFERENCE NO.: 123:40411a,40414a

TITLE: Phenolic compounds in peanut seeds: Enhanced elicitation by chitosan and effects on growth and aflatoxin B1 production by Aspergillus flavus

AUTHOR(S): Fajardo, J. E.; Waniska, R. D.; Cuero, R. G.; Pettit, R. E.

CORPORATE SOURCE: Department Plant Pathology and Microbiology, Texas A and M University, College Station, TX, 77843-2132, USA

SOURCE: Food Biotechnology (New York) (1995), 9(1 & 2), 59-78

CODEN: FBIOEE; ISSN: 0890-5436

PUBLISHER: Dekker  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 ED Entered STN: 21 Jul 1995

AB Effects of chitosan and *Aspergillus flavus* to increase phenolic compds. in viable peanuts were studied at two water activity levels. In vitro effects of phenolic acids on *A. flavus* growth and aflatoxin B1 production were also studied. Chitosan enhanced elicitation of free phenolic compds. (FPC) at Aw 0.85 and 0.95 levels. *A. flavus* initially decreased and subsequently increased FPC content, but bound phenolic compds. (BPC) decreased during incubation. Chitosan + *A. flavus* treatment caused an increase in FPC reaching a plateau between 24-48 h at Aw .85 while BPC levels increased over the same period at both Aw levels. Major free and bound phenolic acids detected were p-coumaric, ferulic and an unknown phenolic acid eluting at a retention time of 22 min. Generally, chitosan significantly enhanced elicitation of free ferulic and p-coumaric acids and bound p-coumaric acid at Aw 0.95. Free unknown phenolic and bound ferulic acids at Aw 0.85 were enhanced by chitosan. *A. flavus* caused significant induction of bound p-coumaric and ferulic acids and free unknown phenolic acid at Aw 0.85, and chitosan enhanced some of these effects, while at the same time limiting *A. flavus* growth and aflatoxin production. Several phenolic acids inhibited *A. flavus* growth and aflatoxin production.

IT 9012-76-4, Chitosan  
 (enhanced elicitation of peanut phenolic compds. by chitosan and effects on growth and aflatoxin B1 production by *Aspergillus flavus*)

RN 9012-76-4 HCAPLUS  
 CN Chitosan (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

CC 17-5 (Food and Feed Chemistry)  
 ST peanut phenolic acid chitosan *Aspergillus aflatoxin*  
 IT *Aspergillus flavus*  
 Peanut  
 (enhanced elicitation of peanut phenolic compds. by chitosan and effects on growth and aflatoxin B1 production by *Aspergillus flavus*)

IT Carboxylic acids, biological studies  
 (phenolic, enhanced elicitation of peanut phenolic compds. by chitosan and effects on growth and aflatoxin B1 production by *Aspergillus flavus*)

IT 121-34-6, Vanillic acid 9012-76-4, Chitosan  
 (enhanced elicitation of peanut phenolic compds. by chitosan and effects on growth and aflatoxin B1 production by *Aspergillus flavus*)

IT 1135-24-6, Ferulic acid 7400-08-0, p-Coumaric acid  
 (enhanced elicitation of peanut phenolic compds. by chitosan and effects on growth and aflatoxin B1 production by *Aspergillus flavus*)

IT 1162-65-8, Aflatoxin B1  
 (enhanced elicitation of peanut phenolic compds. by chitosan and effects on growth and aflatoxin B1 production by *Aspergillus flavus*)

OS.CITING REF COUNT: 18 THERE ARE 18 CAPLUS RECORDS THAT CITE THIS RECORD (18 CITINGS)

=> d 16-22 full

L69 ANSWER 16 OF 22 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN  
 AN 2005-132663 [200514] WPIX Full-text

DNC C2005-043788 [200514]

TI Producing a plant secondary metabolite of interest comprises including within the suspension culture an amount of adsorbent and one or more elicitor agents suitable to increase production of the secondary metabolite.

DC C06; D16

IN FRANCO C M M; ZHANG W

PA (ALBR-C) ALBRIGHT & WILSON AUSTRALIA; (CSIR-C) COMMONWEALTH SCI & IND RES ORG; (TRID-N) TRIDAN LTD; (UYSA-N) UNIV FLINDERS SOUTH AUSTRALIA; (UYME-C) UNIV MELBOURNE

CYC 106

PI WO 2005012507 A1 20050210 (200514)\* EN 104[21]

ADT WO 2005012507 A1 WO 2004-AU991 20040723

PRAI AU 2003-903909 20030725

IPCR A01H0004-00 [I,A]; A01H0004-00 [I,C]; C12N0005-00 [I,A]; C12N0005-00 [I,C]; C12N0005-02 [I,A]; C12N0005-02 [I,C]; C12N0005-04 [I,A]; C12N0005-04 [I,C]; C12P0007-02 [I,C]; C12P0007-22 [I,A]

EPC A01H0004-00B; C12N0005-00M1; C12N0005-04; C12P0007-22

AB WO 2005012507 A1 UPAB: 20050708

NOVELTY - Producing a plant secondary metabolite of interest comprises including within the suspension culture an amount of adsorbent and one or more elicitor agents suitable to increase production of the secondary metabolite.

DETAILED DESCRIPTION - The method comprises:

- (a) cultivating by suspension culture in a suitable nutrient medium plant cells that produce the secondary metabolite;
- (b) including within the suspension culture an amount of adsorbent and one or more elicitor agents suitable to increase production of the secondary metabolite; and recovering the secondary metabolite from the suspension culture.

INDEPENDENT CLAIMS are also included for:

- (1) a secondary metabolite product produced by the;
  - (2) a method of producing a stilbene plant secondary metabolite of interest comprising cultivating by suspension culture in a suitable nutrient medium plant cells that produce a stilbene secondary metabolite; including within the suspension culture an amount of adsorbent and one or more elicitor agents suitable to increase production of the stilbene; and recovering the stilbene from the suspension culture; and
  - (3) a stilbene plant secondary metabolite produced by the method.
- USE - The method comprises producing secondary plant metabolites (claimed) using adsorption and elicitation in cell suspension culture.

TECH BIOTECHNOLOGY - Preferred Method: In producing a plant secondary metabolite of interest, the cells are derived from suspension cell culture. The cells or those from which they are derived have been subjected to genetic manipulation. The callus culture has been established in a solidified callus induction medium from plant explants of a species that produces the secondary metabolite. The cells are derived from one or more of the following plant species: *Atropa bella donna*, *Erythrina flabelliformis*, *Ipomoea tricolor*, *Erythrina crista*, *Celosia cristata*, *Gallium spurium*, *Laurus nobilis*, *Vitis labrusca*, *Vitis vinifera*, *Gratiola officinalis*, *Symphitum officinalis*, *Hosta fortunei*, *Cassia hebecarpa*, *Thalictrum flavum*, *Scutellaria altissima*, *Portulacca oleracea*, *Scutellaria certicola*, *Physalis* sp., *Geum fauriei*, *Gentiana tibetica*, *Linum hirsutum*, *Aconitum napellus*, *Podophyllum emodii*, *Thymus cretaceus*, *Carlina acaulis*, *Chamaecrista fasciculata*, *Pinus pinea*, *Peganum harmala*, *Tamarindus indica*, *Carica papaya*, *Cistus incanus*, *Capparis spinosa*, *Cupressus lusitanica*, *Diospyros kaki*, *Eryngium campestre*, *Aesculus woerlitzensis*, *Aesculus hippocastanum*, *Cupressus sempervirens*, *Celtis occidentalis*, *Polygonum cuspidatum*, *Elaeagnus angustifolia*, *Elaeagnus commutata*, *Gentiana macrophylla*, *Brassica rapa*, *Sesbania exaltata*,

Sesbania speciosa, Spartina potentiflora, Brassica juncea, Helianthus annuus, Poinsettia sp., Pelargonium zonale, Synapsis sp., Leontopodium alpinum, Lupinus luteus, Buxus microphylla var. japonica, Liatris spicata, Primula japonica, Betula nigra, Filipendula vulgaris, Lobelia siphilitica, Grevillea robusta, Reseda luteola, Gentiana littoralis, Campanula carpatica, Ageratum conyzoides, Psidium guajava, Ailanthus altissima, Hydrocotyle asiatica, Brugmansia suaveolens, Thymus pulegioides, Thymus lema-barona, Thymus serpyllum (wild), Gaultheria procumbens, Thymus comosus, Thymus tharcticus, Calycanthus floridus, Zin giber officinalis, Lamium dulcis, Thymus praecox arcticus, Thymus speciosus, Thymus pseudolamginosus, Thymus vulgaris, Ficus religiosa, Forsythia suspensa, Chelidonium majus, Thymus wooly, Thymus portugalense, Nicotiana tabacum, Thymus cythriodorus aureus, Cactus officinalis, Lablab purpurea, Juglans regia, Actinidia chinensis, Hemerocallis sp., Betula pendula, Gardenia jasminoides, Taxodium distichum, Magnolia loebherii, Crataegus praegophyrum, Larix decidua, Thuja orientalis, Thuja occidentalis, Cupressocyparis leylandii, Pseudotsuga menziesii, Abies firma, Parthenocissus quinquefolia, Allium cernuum, Juniperus blue pacific, Taraxacum officinalis, Yucca sp., Tsuga canadensis, Ilex aquifolium, Ilex comuta, Taxus hicksii, Taxus media, Metasequoia glyptostroboides, Pinus bungeana, Buxus sempervirens, Stewartia koreana, Prunus sp., Betula dahurica, Plantago minor Acer palmatum, Acer campestre, Cotinus coggygria, Quercus robur, Acer truncatum, Achyranthes bidentata, Allium japonicum, Carum capsicum, Agastache mexicana, Prunella vulgaris, Tagetes minuta, Nepeta cataria, Ratibida columnaris, Aster novae angliae, Myrica cerifera, Pittosporum tobira, Plantago major, Pinus sylvestris, Acorus canadensis, Pieris japonica, Pinus strobus, Trifolium pratense, Prunus serotina, Datura stramonium, Geranium maculatum, Hydrocotyle asiatica, Astragalus sinicus, Centaurea maculata, Ruschia indurata, Myrrhus communis, Platanus occidentalis, Liciu barba turn, Lavandula officinalis, Grevillea robusta, Hypophae rhamnoides, Filipendula ulmaria, Betula pendula, Polygonum odoratum, Brugmansia graveolens, Rhus toxicodonta, Armoracia rusticana, Ficus benjaminii, Sufflera sp., Baikiaea recurvata, Asimina triloba, Lippia dulcis, Epilobium angustifolium, Brugmansia suaveolens, Xanthosoma sagittifolium, Monstera deliciosa, Aglaonema commutatum, Dieffenbachia leopoldii, Anthurium andreanum, Syngonium podophyllum, Dracaena fragrans, Ananas comosus, Strelitzia reginae, Dieffenbachia seguine, Syngonium auritum, Dracaena sp., Haemanthus katherinae, Anthurium alterianum, Spathiphyllum grandiflorum, Spathiphyllum cochle arispatum, Monstera pertusa, Anthurium magnificum, Anthurium hookeri, Anthurium elegans, Calathea zebrina, Yucca elephantipes, Bromelia balansae, Musa textilis, Myrrhus communis, Olea oleaster, Olea europaea, Nerium oleander, Cocculus laurifolius, Microsorium punctatum, Sansevieria sp., Adansonia digitata, Boehmeria biloba, Piper nigrum, Phymatosorus scolopendria, Tuma ulmifolia, Nicotiana diversifolia, Tapeinochilos spectabilis, Rauwolfia tetraphylla, Ficus elastica, Cycas circinalis, Caryota urens, Cynnamomum zeylonicum, Aechmea luddemanniana, Phoenix zeylonica, Ficus benjamina, Ficus pumila, Murraya exotica, Trevesia sundaica, Clerodendrum speciosissimum, Actinidia kolomikta, Paeonia lactiflora, Paeonia suffruticosa, Quercus imbricaria, Iris pallida, Portulacca oleracea, Polygonum aviculare, Iris pseudocarpus, Allium nutans, Allium fistulosum, Anthericum ramosum, Veratrum nigrum, Polygonum lapathifolium, Hosta lancifolia, Hosta sieboldii, Echinops sphaerocephalus, Paeonia dahurica, Inula helenium, Crambe pontica, Digitalis lutea, Baptisia australis, Aristolochia australis, Hyssopus seravschanicus, Teucrium chamaedrys, Sedum album, Heracleum pubes cense, Origanum vulgare, Cachrys alpina, Laser trilobum, Matteuccia struthiopteris, Sedum telephium, Bocconia cordata, Ajuga reptans,

*Thalictrum minus*, *Anemone japonica*, *Clematis rectae*, *Alchemilla officinalis*, *Potentilla alba*, *Poterium sanguisorba*, *Menispermum dauricum*, *Oxybaphus nyctagineus*, *Armoracia rusticana*, *Crambe cordifolia*, *Agrimonia eupatoria*, *Anchusa officinalis*, *Polemonium caeruleum*, *Valeriana officinalis*, *Pulmonaria mollissima*, *Stachys lanata*, *Coronilla varia*, *Platycarya grandiflora*, *Lavandula officinalis*, *Vincetoxicum officinale*, *Acalypha hispida*, *Gnetum gnemon*, *Psycho tria nigropunctata*, *Psycho tria metbac teriodomasica*, *Codiaeum variegatum*, *Phyllanthus grandifolius*, *Pterigota alata*, *Pachyra affinis*, *Sterculia data*, *Philodendron speciosum*, *Pithecellobium unguis-cati*, *Sanchezia nobilis*, *Oreopanax capitatum*, *Ficus triangularis*, *Kigelia pinnata*, *Piper cubeba*, *Laurus nobilis*, *Erythrina cajfra*, *Metrosideros excelsa*, *Osmanthus fragrans*, *Cupres sussempervirens*, *Jacobinia sp.*, *Senecio platyphylloides*, *Livistona chinensis*, *Tetraclinis articulata*, *Eucalyptus rudis*, *Podocarpus spinulosus*, *Eriobotrya japonica*, *Ginkgo biloba*, *Rhododendron sp.*, *Thuja occidentalis*, *Fagopyrum sufruticosum*, *Geum macrophyllum*, *Magnolia kobus*, *Vinca minor*, *Convallaria majalis*, *Corylus avellana*, *Berberis sp.*, *Rosa multiflora*, *Ostrya carpinifolia*, *Ostrya connogea*, *Quercus rubra*, *Liriodendron tulipifera*, *Sorbus aucuparia*, *Betula nigra*, *Castanea sativa*, *Bergenia crassifolia*, *Artemisia dracunculus*, *Ruta graveolens*, *Quercus nigra*, *Schisandra chinensis*, *Betula alba*, *Sambucus nigra*, *Gentiana cruciata*, *Encephalartos horridus*, *Phlebodium aureum*, *Microlepis platyphylla*, *Ceratostylis mexicana*, *Stenochlaena tenuifolia*, *Adiantum trapeziforme*, *Adiantum raddianum*, *Lygodium japonicum*, *Pessopteris crassifolia*, *Asplenium australasicum*, *Agathis robusta*, *Osmunda regalis*, *Osmundastrum claytonianum*, *Phyllitis scolopendrium*, *Polystichum braunii*, *Cyrtomium fortunei*, *Dryopteris flux mas*, *Equisetum variegatum*, *Athyrium nipponicum*, *Athyrium filix-femina*, *Parthenocissus tricuspidata*, *Ligusticum vulgare*, *Chamaecyparis parispisifera*, *Rosa canina*, *Cotinus coggygia*, *Celtis occidentalis*, *Picea schrenkiana*, *Cydonia oblonga*, *Ulmus pumila*, *Euonymus verrucosus*, *Deutzia scabra*, *Mespilus germanica*, *Quercus castaneifolia*, *Euonymus europea*, *Securinega sufruticosa*, *Koeleria paniculata*, *Syringa josikaea*, *Zelkova carpinifolia*, *Abies cephalonica*, *Taxus baccata*, *Taxus cuspidata*, *Salix babylonica*, *Thuja occidentalis*, *Actinidia chinensis*, *Mahonia aquifolium*, *Aralia mandshurica*, *Juglans nigra*, *Euonymus sinensis*, *Prinsepia sinensis*, *Forsythia europaea*, *Sorbus aucuparia*, *Quercus pedunculata*, *Morus alba*, *Crataegus macrophyllum*, *Eucommia ulmifolia*, *Sorbus commixta*, *Philodendron amurense*, *Cornus mas*, *Kenia japonica*, *Parrotia persica*, *Jasminum fruticans*, *Swidaea guinea*, *Pentaphylloides fruticosa*, *Sibiraea altaensis*, *Cerasus japonica*, *Kolkwitzia amabilis*, *Amigdalus nana*, *Acer mandshurica*, *Salix tatarica*, *Amelanchier spicata*, *Cerasus mahaleb*, *Prunus cerasifera*, *Corylus avellana*, *Acer tataricum*, *Viburnum opulus*, *Syringa vulgaris*, *Fraxinus excelsior*, *Quercus trojana*, *Chaenomeles superba*, *Pinus salicifolia*, *Berberis vulgaris*, *Cotoneaster horizontalis*, *Cotoneaster fangianus*, *Fagus sylvatica*, *Pinus pumila*, *Pinus sylvestris*, *Berberis thunbergii*, *Ajuga reforestii*, *Anisodus acutangulus*, *Chinchona ledgeriana*, *Valeriana officinalis*, *Peganum harmala*, *Chrysanthemum cinerariaefolium*, *Tagetes patula*, *Scopolia japonica*, *Rauwolfia serpentina*, *Papaver somniferum*, *Capsicum frutescens*, *Fumaria caperolata* L., *Datura stramonium*, *Tinospora rumphii*, *Tripterygium wilfordii*, *Coptis japonica*, *Salvia officinalis*, *Colletia blumei*, *Catharanthus roseus*, *Morinda citrifolia*, *Lithospermum erythrorhizon*, *Dioscorea deltoidea*, *Mueuna pruriens*, *Mirabilis jalapa*, *Boerhavia diffusa*, *Camptotheca acuminata*, *Nothapodytes foetida*, *Morus nigra*, *Symphoricarpos albus* and *Ophiorrhiza pumila*. The cells are derived from leaves, fruit, shoots, buds, flowers, bark, roots, branches, stems, seeds, cones, needles or cambium tissue of the plant.

The cells are derived from meristematic plant tissue. The secondary metabolite is a stilbene compound. The stilbene compound is trans-resveratrol, cis-resveratrol, trans-piceid, cis-piceid, a trans-resveratrol dehydrodimer, a cis-resveratrol dehydrodimer, a trans-pterostilbene, a cis-pterostilbene, a viniferin, trans-piceatannol or (3,5,5N,4N-tetrahydroxystilbene) 3-0-/3-glucoside (trans-astringin). The secondary metabolite produced is trans-resveratrol or cis-resveratrol. The secondary metabolite is an alkaloid compound, a terpenoid compound, an isoprenoid compound, a phenylpropanoid compound, a glucosinolate compound or a pyremrin compound. The plant secondary metabolite is taxol, podophyllotoxin, an indole alkaloid, a beta-carboline alkaloid, 10-hydroxy-N(alpha)-demethyl-19,20-dehydroraumacline, a terpenoid indole alkaloid, strictosidine, vallesamine, O-acetylvallesamine, voaphylline, camptothecin, 3-oxo-rhazininilam, 10-hydroxycamptothecin, maytansine, triptolide, harringtonine, homoharringtonine, isoharringtonine, bruceantin, ellipticine, thalicarpine, indicine-N-oxide, baccharin, hyoscyamine, scopolamine, vinblastine, vincristine, catharanthine, vindoline, sanguinarine, norsanguinarine, a valepotriate, atropine, quinidine, a 9-dihydrobaccatin III derivative, rhazininilam, tubotaiwine, a phenanthrofliran derivative, ajuforrestine A, reserpine, codeine, thebaine, cryptopine, berberine, a saponin, a sapogenin, ginsenoside, rosmarinic acid, arbutin, ajmalicine, an anthraquinone, artemesin, forskolin, shikonin, an anthocyanin, diosgenin, ubiquinone-10, serpentine, L-DOPA, pyrethrin, thiophene, 6-hydroxytaumacline, capsaicin, ruine or serotonin. The sub-culturing is conducted weekly, fortnightly or monthly. The method is conducted a batch process, or in a semi-continuous or continuous process. The semi-continuous process is operated in a fed-batch or a repeated-batch mode. The elicitor agents are selected from one or more of biotic elicitors, microbial fractions or products derived from biotic elicitors, and abiotic elicitors. The biotic elicitors are selected from one or more Botrytis cinerea Phytophthora megasperma, Pinellas stripticum, Oligosporus sp., Pythium mamillatum, Pythium sylvaticum, Verticillium dahliae, Verticillium sp., Penicillium minioluteum, Phytophthora lateralis, Cytospora cincta, Cytospora leucostoma, Alternaria brassicicola, Alternaria solani, Alternaria cucumerina, Botrytis squamosa, Cochliobolus heterostrophus, Colletotrichum trifolii, Colletotrichum orbiculatum, Colletotrichum graminicola, Colletotrichum gloeosporioides, Cylindrocladium floridanum, Fusarium crookwellense, Fusarium heterosporium, Fusarium oxysporum f. sp. conglutinans, Fusarium oxysporum f. sp. lycopersici, Fusarium oxysporum f. sp. pisi, Gibberella zeae, Gaeumannomyces graminis var. tritici, Geotrichum sp., Leptosphaeria torrae, Nectria haematococca MPVI, Mycosphaerella pinodes, Ophiostoma ulmi, Phoma lingam, Phoma pinodella, Phytophthora infestans, Pythium aristosporum, Pythium graminicola, Pythium ultimum, Rhizoctonia solani, Sclerotinia sp., S. nodorum D-45, Trametes versicolor, Ustilago maydis, Venturia inaequalis. The microbial fractions or products derived from biotic elicitors are selected from one or more of Chitosan, Lichenan, Glucomannan, Pleuran, Glucan, Carboxymethylglucan, Hydroxymethylglucan, Sulfoethylglucan, Mannan, Xylan, Mannobiose, Mannotriose, Mannopentaose, Mannotetraose, Cellulysin, Multifect XL, Multifect CL, Resinase, Pulpzyme, SP431, Pectinol, Rapidase, Klerzyme, or Chitinase. The abiotic elicitors are selected from one or more of: Arachidonic acid, Elaidic acid, Cyclic AMP, Dibutyl Cyclic AMP, Methyl Jasmonate, Cis-Jasmonate, Jasmonic acid, /3-glucan, Miconazol, Ferulic acid, AMO-1618, Triton X-100, Benzoic acid, Salicylic acid, Propyl gallate, Sesamol, Chlorocholine chloride, 3,4-dichlorophenoxy tri ethyl-, (amine), Chloroethylphosphonic acid,



Diethyldithiocarbamic acid, Nordihydroguaiaretic acid, Dithiothreitol, Sodium metabisulfite, Potassium metabisulfite, d-amino-DL-Phenylalanine, Vanadyl sulfate, Uniconazol, Paclobutrazol, Spermine, Spermidine, Putrescine, Cadavarine, Protamine Sulfate, SKF-7997, MER 29, Ancyimidol, Triadimefon, Phosphon D, Thiourea, Dextran Sulfate, Hydroquinone, Chitosan glutamate, Fenpropomorph, Prochloraz, Naptifine, EDU, HTA, MPTA, Glutathione, EGTA, Gibberellins, Absciscic Acid, 1,3-Diphenyl urea, Diazolidenyl urea, Phloroglucinol, Sodium alginate, Carrageenan, Aluminium chloride, Ethylene, Acetylsalicylic acid, Sodium chloride, Acetic acid. The elicitors are provided within the suspension culture in a concentration of from about 0.01/1M to about 1 M, or 1M-500µM. The elicitors are added to the suspension culture at a time from the inoculation time to any time during the culture duration. The elicitors are added to the suspension culture at a time from the early exponential growth phase to the stationary phase. There is a second or multiple addition of the elicitors into the suspension culture, conducted between about six hours to about a month in duration after the previous elicitation. The second or multiple addition of elicitors is conducted between about twelve hours to about two weeks in duration after the previous elicitation. The second or multiple addition of elicitors is conducted between about twelve hours to about seven days in duration after the previous elicitation. The adsorbent is included in the suspension culture in an amount of between about 1-500, 20-300, or 50-200 g/L. The adsorbent is added to the suspension culture between the inoculation to any time during the culture duration. The adsorbent is added to the suspension culture between the inoculation to the end of the exponential growth phase. The adsorbent is added in the suspension culture in conjunction with one or a combination of elicitor agents at the same time during the cultivation. The adsorbent is added in the suspension culture in conjunction with one or a combination of elicitor agents at a different time during the cultivation. The nutrient medium comprises one or more of a carbon source, an organic nitrogen source, and inorganic nitrogen source, a macrosalt, a microsalt, a rare trace element, a vitamin, an organic supplement, a plant hormone, a hormone substitute or derivative, a hormone inhibitor, a synthetic growth regulator, a biosynthetic precursor, a metabolic inhibitor, a non-metabolic inhibitor, a stimulant, an activator, an anti-browning agent, an anti-oxidant, a stabilizer, an enhancer, a radical, a scavenger, a conditioner and a reducing agent. The adsorbent material is a macroporous non-ionic cross-linked polymeric material. The adsorbent is selected from one or more of Amberlite (RTM) XAD7, Amberlite (RTM) XAD2, Amberlite (RTM) XAD7HP, Amberlite (RTM) XAD4, Amberlite (RTM) XAD16, Amberlite (RTM) XAD1600, Amberlite FP (RTM)(r), Purasorb AP-250, Purasorb AP-400; Dowex L493, Dowex V493, Dowex L323, Diaion HP20, Diaion HP21, SEPABEADS SP207, SEPABEADS SP70, SEPABEADS SP700, SEPABEADS SP825, SEPABEADS SP850, Diaion HP2MG; SERDOLIT PAD I, SERDOLIT PAD II, SERDOLIT PAD III, SERDOLIT PAD IV, RP-8 (Merck), Charcoal, activated charcoal, Supelpak-2, Supelpak-2B, Supelite DAX-8, Duolite XAD761, Dowex, Optipore L493, Poly(styrene-co-divinylbenzene), AMBERSORB 572, AMBERSORB 348F, Dimethylaminomethyl-polystyrene, Poly(4-ethylstyrene-co-divinylbenzene), Florisil, Ferric hydroxide oxide, Sepiolite, Mimetic Green 1 Ligand Affinity Adsorbent, Mimetic Yellow 2 Ligand Affinity Adsorbent, Mimetic Red 2 Ligand Affinity Adsorbent, Mimetic Orange 2 Ligand Affinity Adsorbent, Mimetic Blue 1 Ligand Affinity Adsorbent, Mimetic Blue SA Ligand Affinity Adsorbent, Mimetic Blue 2 Ligand Affinity Adsorbent, Mimetic Orange 3 Ligand Affinity Adsorbent, Mimetic Red 3 Ligand Affinity Adsorbent, Mimetic Blue AP Ligand Affinity Adsorbent, Mimetic Orange 1 Ligand Affinity

Adsorbent, Mimetic Yellow 1 Ligand Affinity Adsorbent, Tenax TA5 AMBERCHROM, AMBERJET, AMBERLYST, DUOLITE, MAC HP, Acrylic anion resins, XAD polymeric adsorbents, Phenol- formaldehyde resin, Nuclear grade resins. The adsorbent is in the form of an immiscible liquid phase adsorbent. The immiscible liquid phase adsorbent is selected from one or more of dimethyl siloxane polymer (Silicone antifoam A), polymethoxy silanes, long chain or branched alkane adsorbents and glycol or polyol adsorbents. The secondary metabolite is recovered in an amount at least 800, 1000, 1200 or 1500-fold increased relative to a comparable method of production where adsorbent and elicitor are not included in the suspension culture. The recovery of the secondary metabolite from the suspension culture is achieved by isolating the secondary metabolite from the cells, the adsorbent and the nutrient medium utilizing solvent extraction with a suitable solvent.

FS CPI

MC CPI: C01-D02; C04-A08C2; C04-F08; C05-B02C; C05-C06; C06-H; C07-A02B; C07-B01; C08-D02; C10-A06; C10-B02E; C10-C03; C10-D03; C10-E02; C10-F02; C10-J02; D05-H08; D05-H10; D05-H13

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AN 2002-294503 [200234] WPIX Full-text

DNC C2002-086557 [200234]

TI Compositions containing heteroxylan and thickening or gelling hydrocolloid, useful as texturizing agents and stabilizers in dispersions, especially foams, e.g. in food, cosmetic or pharmaceutical applications

DC A11; A60; A97; B07; C07; D13; D21; E13; H01

IN BOURRIOT S; DE LORGERIL C; VASLIN S

PA (RHOD-C) RHODIA CHIM; (RHOD-C) RHODIA FOOD SAS

CYC 94

PI FR 2811997 A1 20020125 (200234)\* FR 13[0]

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WO 2002008330 A1 20020131 (200234) FR

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AU 2001078553 A 20020205 (200236) EN

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ADT FR 2811997 A1 FR 2000-9677 20000724; AU 2001078553 A AU

2001-78553 20010720; WO 2002008330 A1 WO 2001-FR2373

20010720

FDT AU 2001078553 A Based on WO 2002008330 A

PRAI FR 2000-9677 20000724

IPCR A23C0013-00 [I,C]; A23C0013-12 [I,A]; A23C0009-13 [I,C]; A23C0009-137

[I,A]; A23G0003-00 [I,A]; A23G0003-00 [I,C]; A23G0003-34 [I,A];

A23G0003-34 [I,C]; A23G0009-32 [I,A]; A23G0009-32 [I,C]; A23G0009-52

[I,A]; A23G0009-52 [I,C]; A23L0001-00 [I,A]; A23L0001-00 [I,C];

A23L0001-10 [I,A]; A23L0001-10 [I,C]; B01F0017-56 [I,A]; B01F0017-56

[I,C]; C08L0005-00 [I,C]; C08L0005-14 [I,A]

EPC A23C0009-137; A23C0013-12; A23G0003-34E+D6; A23G0003-42; A23G0009-34;

A23G0009-52+D6; A23L0001-00P16; A23L0001-10E; A61K0008-73;

A61Q0019-00; C08L0005-14; C08L0005-14+B

AB FR 2811997 A1 UPAB: 20060119

NOVELTY - New compositions (A) contain heteroxylan(s) (I), partially replaced by thickening or gelling hydrocolloid(s) (II).

USE - The use of (A) is claimed as texturing agent in dispersions comprising at least two immiscible phases, specifically where at least one phase is liquid and the other is a gas. Also claimed are dispersions containing (A) (specifically at 0.1-2 weight %), for use in the cosmetic, food, detergent, agrochemical, industrial formulation, pharmaceutical, construction material, drilling fluid or radical polymerization sectors. (A) especially improves the expanding properties of the liquid phase(s) of gas-

containing dispersions (i.e. foams), and also improves the shear resistance of the liquid phase(s) and minimizes or suppresses natural aging phenomena (e.g. drainage, Ostwald ripening and coalescence) in the foamed dispersions. More generally (A) have texturizing, expansion promoting, emulsifying, stabilizing and thickening properties. Typically (A) is used in foamed food products such as yogurt, ice cream, fruit puree, chocolate or sauces.

ADVANTAGE - (A) has good texturizing and stabilizing effects at a low concentration. The properties can be controlled by varying the nature and content of (II). In foodstuff applications suitable choice of (I) and (II) can provide excellent organoleptic properties (e.g. mouth-feel and smoothness), so that (A) can totally or completely replace conventional texturizing components such as fats.

TECH POLYMERS - Preferred Composition: (I) is a secondary wall heteroxylan having a highly branched structure, preferably an arabinoxylan. In particular (I) is an arabinoxylan extracted from maize bran and having a main chain of xylose units, 45-60 wt. % of which are substituted by 25-40% arabinose groups, 5-10% galactose groups, 5-10% glucuronic acids and 0-1% residues of ferulic acid (or its salt). (I) has molecular weight 50000-500000 (preferably 100000-350000). (II) is starch, araban, alginate, carrageenan, cellulose (or its derivative), chitosan, dextran, dextrin, fructosan, galactan, galactomannan, gum arabic, pectin, ghatti gum, galactoside, xanthan gum, glucan, glycan, glycogen, hemicellulose, hyaluronic acid, inulin, laminarin, levan, cellulose microfibrils, mannan, pentosan, polydextrose or xylan, especially xanthan gum, carob, carrageenan, pectin or cellulose microfibrils. (A) contains (I) at 50-90 wt. % and (II) at 10-50 wt. %.

ORGANIC CHEMISTRY - Preferred Components: (II) include threose, erythrose, xylose, ribose, desoxyribose, rhamnose, fucose, glucosamine, galactosamine, N-acetyl-glucosamine or N-acetyl-galactosamine.

ABEX EXAMPLE - A foamed acidic yogurt was prepared from heat treated milk by adding 1.1 wt. % (based on milk) of a mixture of arabinoxylan and xanthan gum in weight ratio 10/1 under stirring. After stirring for a few minutes, the mixture was cooled to 43degreesC, inoculated, fermented for 6 hours and stored at 5degreesC overnight. After 24 hours the mixture was foamed using a mixer then stored in a refrigerator at 5degreesC. The degree of foaming was ca. 100% (i.e. 1 liter of gas in 1 liter of continuous phase). The appearance, texture and taste were at least equivalent to those of conventional gelatin-containing foamed yogurts. The foams were stable, and showed no signs of macroscopic destabilization (drainage) on storage for 28 days.

FS CPI

MC CPI: A03-A; A12-V01; A12-W09; A12-W11; B04-A10G; B04-C02A; B04-C02B; B04-C02C; B04-C02D; B07-A02A; B10-A07; B12-M06; B14-R01; C04-A10G; C04-C02A; C04-C02B; C04-C02C; C04-C02D; C07-A02A; C10-A07; C12-M06; C14-R01; D03-H01J; D03-H01Q; D08-B; E07-A02H; H01-B06C

L69 ANSWER 18 OF 22 WPIX COPYRIGHT 2010 THOMSON REUTERS ON STN

AN 2001-112499 [200112] WPIX [Full-text](#)

CR 2001-091751

DNC C2001-033517 [200112]

TI Method for controlling the flux of penetrants across an adaptable semi-permeable barrier is useful for administering an agent to a mammalian body or a plant and for generating an immune response by vaccinating the mammal

DC A18; A28; A96; B05; B07; D16; D22; P34

IN CEVC G; RICHARDSSEN H; WEILAND-WAIBEL A; GEORGE C C; HOLGER R; WEI;

WEILAND-WEIBEL A  
 PA (CEVC-I) CEVC G; (IDEA-N) IDEA AG; (RICH-I) RICHARDSEN H; (WEIL-I)  
 WEILAND-WAIBEL A; (IDEA-N) IDEA INNOVATIVE DERMAL APPLIKATIONEN GM  
 CYC 93  
 PI WO 2001001963 A1 20010111 (200112)\* EN 110[14]  
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 CZ 2002000038 A3 20020515 (200241) CS  
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 ADT WO 2001001963 A1 WO 2000-EP6367 20000705; AU 2000061557 A  
 AU 2000-61557 20000705; AU 779765 B2 AU 2000-61557  
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 20000705; IN 2001DN01133 P1 IN 2001-DN1133 20011206; CZ  
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 ; US 20030099694 A1 US 2002-37480 20020104; US 20050123897  
 A1 Cont of US 2002-37480 20020104; US 7459171 B2 US  
 2002-37480 20020104; US 20050123897 A1 US 2004-984450  
 20041108; US 7591949 B2 Cont of WO 1999-EP4659 19990705  
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 B2 Cont of US 2002-37480 20020104; US 7591949 B2 US  
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 FDT AU 779765 B2 Previous Publ AU 2000061557 A; AU 2000061557 A Based on  
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 A; HU 2002001454 A2 Based on WO 2001001963 A; JP 2003503442 W Based on  
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 Based on WO 2001001963 A  
 PRAI WO 1999-EP4659 19990705  
 IC ICM A61K009-127

IPCI A61K0009-127 [I,A]; A61K0009-127 [I,C]; A61K0009-70 [I,A]; A61K0009-70 [I,C]; B01D0061-00 [I,A]; B01D0061-00 [N,A]; B01D0061-00 [I,C]; B01D0061-00 [N,C]; B01D0063-00 [N,A]; B01D0063-00 [N,C]  
 IPCR A61F0002-02 [I,A]; A61F0002-02 [I,C]; A61F0002-28 [I,A]; A61F0002-28 [I,C]; A61K0031-045 [I,A]; A61K0031-045 [I,C]; A61K0031-05 [I,A]; A61K0031-055 [I,A]; A61K0031-14 [I,A]; A61K0031-14 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]; A61K0031-192 [I,A]; A61K0031-28 [I,C]; A61K0031-305 [I,A]; A61K0031-452 [I,A]; A61K0031-452 [I,C]; A61K0045-00 [I,A]; A61K0045-00 [I,C]; A61K0047-02 [I,A]; A61K0047-02 [I,C]; A61K0047-08 [I,A]; A61K0047-08 [I,C]; A61K0047-10 [I,A]; A61K0047-10 [I,C]; A61K0047-12 [I,A]; A61K0047-12 [I,C]; A61K0047-14 [I,A]; A61K0047-14 [I,C]; A61K0047-16 [I,C]; A61K0047-18 [I,A]; A61K0047-22 [I,A]; A61K0047-22 [I,C]; A61K0047-26 [I,A]; A61K0047-26 [I,C]; A61K0047-28 [I,A]; A61K0047-28 [I,C]; A61K0047-32 [I,A]; A61K0047-32 [I,C]; A61K0047-34 [I,A]; A61K0047-34 [I,C]; A61K0047-36 [I,A]; A61K0047-36 [I,C]; A61K0047-38 [I,A]; A61K0047-38 [I,C]; A61K0047-42 [I,A]; A61K0047-42 [I,C]; A61K0047-46 [I,A]; A61K0047-46 [I,C]; A61K0009-127 [I,A]; A61K0009-127 [I,C]; A61K0009-70 [I,A]; A61K0009-70 [I,C]; A61L0027-00 [I,C]; A61L0027-22 [I,A]; A61L0027-26 [I,A]; A61L0027-34 [I,A]; A61L0027-48 [I,A]; A61P0001-00 [I,A]; A61P0001-00 [I,C]; A61P0001-16 [I,A]; A61P0001-18 [I,A]; A61P0011-00 [I,A]; A61P0011-00 [I,C]; A61P0013-00 [I,C]; A61P0013-12 [I,A]; A61P0017-00 [I,A]; A61P0017-00 [I,C]; A61P0017-02 [I,A]; A61P0019-00 [I,A]; A61P0019-00 [I,C]; A61P0021-00 [I,C]; A61P0021-04 [I,A]; A61P0025-00 [I,C]; A61P0025-02 [I,A]; A61P0025-08 [I,A]; A61P0027-00 [I,C]; A61P0027-02 [I,A]; A61P0027-16 [I,A]; A61P0029-00 [I,A]; A61P0029-00 [I,C]; A61P0003-00 [I,C]; A61P0003-14 [I,A]; A61P0031-00 [I,A]; A61P0031-00 [I,C]; A61P0031-04 [I,A]; A61P0007-00 [I,A]; A61P0007-00 [I,C]; C12Q0001-00 [I,A]; C12Q0001-00 [I,C]; C12Q0001-18 [I,A]; C12Q0001-18 [I,C]  
 EPC A61K0009-127B2; A61K0009-70E  
 NCL NCLM 210/645.000; 424/449.000; 435/004.000  
 NCLS 210/321.750; 210/645.000; 210/650.000; 424/094.300; 424/096.300; 424/443.000; 424/448.000; 424/449.000; 424/450.000; 435/032.000  
 FCL A61K0031-045; A61K0031-05; A61K0031-055; A61K0031-14; A61K0031-19; A61K0031-192; A61K0031-305; A61K0031-452; A61K0045-00; A61K0047-02; A61K0047-08; A61K0047-10; A61K0047-12; A61K0047-14; A61K0047-18; A61K0047-22; A61K0047-26; A61K0047-28; A61K0047-32; A61K0047-34; A61K0047-36; A61K0047-38; A61K0047-42; A61K0047-46; A61K0009-127; A61K0009-70 401; A61P0001-00; A61P0001-16; A61P0001-18; A61P0011-00; A61P0013-12; A61P0017-00; A61P0017-02; A61P0019-00; A61P0021-04; A61P0025-02; A61P0025-08; A61P0027-02; A61P0027-16; A61P0029-00; A61P0029-00 101; A61P0003-14; A61P0031-00; A61P0031-04; A61P0007-00  
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4C084/MA59; 4C086/MA59; 4C084/MA63; 4C086/MA63; 4C206/MA76;  
 4C206/MA79; 4C206/MA83; 4C084/NA10; 4C086/NA10; 4C206/NA10;  
 4C084/NA11; 4C086/NA11; 4C206/NA11; 4C086/ZA06; 4C206/ZA06;  
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 4C206/ZA96; 4C084/ZA96.2; 4C086/ZB11; 4C206/ZB11; 4C084/ZB11.2;  
 4C086/ZB15; 4C206/ZB15; 4C084/ZB15.2; 4C086/ZB35; 4C206/ZB35;  
 4C084/ZB35.2; 4C086/ZC21; 4C206/ZC21; 4C084/ZC21.2

AB WO 2001001963 A1 UPAB: 20090928

NOVELTY - A method for controlling the flux of penetrants across an adaptable semi-permeable porous barrier is new.

DETAILED DESCRIPTION - A method for controlling the flux of penetrants across an adaptable semi-permeable membrane comprises suspending the penetrants in a polar liquid in the form of fluid droplets surrounded by a membrane-like coating comprising at least two kinds of amphiphilic substances with a tendency to aggregate, selecting a dose of the penetrants to control the flux of the penetrants across the barrier and applying the selected dose of the formulation onto the area of the barrier. The amphiphilic substances differ by a factor of at least 10 in solubility in the polar liquid and the homo-aggregates of the more soluble substance and hetero-aggregates have a preferred average diameter smaller than the diameter of the homo-aggregates of the less soluble substance. The more soluble substance tends to solubilize the droplet and comprises up to 99% of the solubilizing concentration or saturating concentration in the unstabilized droplet. The presence of the more soluble substance lowers the average elastic energy of the coating by at least 5 times preferably more than 10 times the average elastic energy of red blood cells or of phospholipid bilayers with fluid aliphatic chains. The penetrants are able to transport agents through the pores of the barrier or enable agent permeation through the pores after the penetrants have entered the pores.

INDEPENDENT CLAIMS are included for:

- (i) a kit containing the formulation;
- (ii) a patch containing the formulation; and
- (iii) a method of administering an agent to a mammalian body or plant comprising the novel method.

USE - The method is useful for administering an agent to a mammalian body or a plant, for generating an immune response by vaccinating the mammal and for treating inflammatory disease, dermatosis, kidney or liver failure, adrenal insufficiency, aspiration syndrome, Behcet syndrome, bites and stings, blood disorders (cold-hemagglutinin disease), hemolytic anaemia, hypereosinophilic, hypoplastic anaemia, macroglobulinaemia and thrombocytopenic purpura), bone disorders, cerebral oedema, Cogan's syndrome, congenital adrenal hyperplasia, connective tissue disorders (lichen, lupus erythematosus, polymyalgia rheumatica, polymyositis and dermatomyositis), epilepsy, eye disorders (cataracts), Graves' ophthalmopathy, hemangioma, herpes infections, neuropathies, retinal vasculitis, scleritis, gastrointestinal disorders (inflammatory bowel disease, nausea and oesophageal damage), hypercalcaemia, infections, Kawasaki disease, myasthenia gravis, pain syndromes, polyneuropathies, pancreatitis, respiratory disorders (asthma), rheumatoid disease, osteoarthritis, rhinitis, sarcoidosis, skin diseases, alopecia, eczema, erythema multiforme, lichen, pemphigus and pemphigoid, psoriasis, pyoderma gangrenosum, urticaria and thyroid and vascular disorders.

ADVANTAGE - Increasing the applied dose above a threshold level affects both the drug/penetrant distribution and also determines the rate of penetrant transport across the barrier.

TECH PHARMACEUTICALS - Preferred Composition: The flux is increased by

enlarging the applied dose per area of the penetrants and the pH of the composition is preferably 3 to 10, especially 5 to 8. The formulation preferably comprises a thickening agent to raise the viscosity to maximally 5 Nm/s, especially 0.2Nm/s, an antioxidant to reduce the increase of oxidation index to less than 100% per 6 months, preferably 50% per 12 months and/or a microbicide to reduce the bacterial count after 4 days, preferably after 1 day, to less than 100/g for aerobic bacteria, less than 10 for entero-bacteria and less than 1 for *Pseudomonas aeruginosa* or *Staphylococcus aureus*. At least one microbicide is added in an amount that reduces the bacterial count of 1 million germs added per gram of total mass of the formulation after a period of 3 days and preferably after a period of 1 day. The thickening agent is selected from the class of pharmaceutically acceptable hydrophilic polymers, such as partially etherified cellulose derivatives, like carboxymethyl-, hydroxyethyl-, hydroxypropyl-, hydroxypropylmethyl- or methyl-cellulose; completely synthetic hydrophilic polymers such as polyacrylates, polymethacrylates, poly(hydroxyethyl)-, poly(hydroxypropyl)-, poly(hydroxypropylmethyl)methacrylates, polyacrylonitriles, methallyl-sulfonates, polyethylenes, polyoxyethylenes, polyethylene glycols, polyethylene glycol-lactides, polyethylene glycol-diacylates, polyvinylpyrrolidones, polyvinyl alcohols, poly(propylmethacrylimides), poly(propylene fumarate-co-ethylene glycols), poloxamers, polyaspartamides, (hydrazine cross-linked) hyaluronic acids, silicones; natural gums comprising alginates, carrageenans, guar-gums, gelatins, tragacanth, (amidated) pectins, xanthans, chitosan collagens, agaroses; mixtures and further derivatives or co-polymers of them and / or other pharmaceutically, or at least biologically, acceptable polymers. The concentration of the polymer is in the range between 0.01 w-% and 10 w-%, more preferably in the range between 0.1 w-% and 5 w-%, even more preferably in the range between 0.25 w-% and 3.5 w-% and most preferably in the range between 0.5 w-% and 2 w-%. The anti-oxidant is selected from synthetic phenolic anti-oxidants, such as butylated hydroxyanisol (BHA), butylated hydroxytoluene (BHT) and di-tert-butylphenol (LY 178002, LY256548, HWA- 13 1, BF-389, C1-986, PD- 127443, E-5 119, BI-L-239XX, etc.), tertiary butylhydroquinone (TBHQ), propyl gallate (PG), 1 -0-hexy-2,3,5-trimethylhydroquinone (HTHQ); aromatic amines (such as diphenylamine, p-alkylthio-o-anisidine, ethylenediamine derivatives, carbazol, tetrahydroindenoindol); phenols and phenolic acids (such as gualacol, hydroquinones, vanillin, gallic acids and their esters, protocatechuic acid, quinic acid, syringic acid, ellagic acid, salicylic acid, nordihydroguaiaretic acid (NDGA), eugenol; tocopherols (including tocopherols (alpha, beta, gamma, delta) and their derivatives, such as tocopheryl-acylate (e.g. -acetate, -laurate, myristate, -palmitate, -oleate, Ainoleate, etc., or any other suitable tocopheryl-lipoate), tocopheryl-POE-succinate; trolox and corresponding amide- and thiocarboxamide analogues; ascorbic acid and its salts, isoascorbate, (2 or 3 or 6)-o-alkylascorbic acids, ascorbyl esters (e.g. 6-o-lauroyl, myristoyl, palmitoyl-, oleoyl, or linoleoyl-L-ascorbic acid, etc.); non-steroidal anti-inflammatory agents (NSAIDs), such as indomethacin, diclofenac, mefenamic acid, flufenamic acid, phenylbutazone, oxyphenbutazone acetylsalicylic acid, naproxen, diflunisal, ibuprofen, ketoprofen, piroxicam, penicillamine, penicillamine disulphide, primaquine, quinacrine, chloroquine, hydroxychloroquine,

azathioprine, phenobarbital, acetaminophen); aminosalicyclic acids and derivatives; methotrexate, probucol, antiarrhythmics (e.g. amiodarone, aprindine, asocinol), ambroxol, tamoxifen, b-hydroxytamoxifen; calcium antagonists (such as nifedipine, nisoldipine, nimodipine, nicardipine, nilvadipine), beta-receptor blockers (e.g. atenolol, propranolol, nebivolol); sodium bisulphite, sodium metabisulphite, thiourea; chelating agents, such as EDTA, GDTA, desferal; endogenous defence systems, such as transferrin, lactoferrin, ferritin, ceruloplasmin, haptoglobin, haemopexin, albumin, glucose, ubiquinol-10; enzymatic antioxidants, such as superoxide dismutase and metal complexes with a similar activity, including catalase, glutathione peroxidase, and less complex molecules, such as beta-carotene, bilirubin, uric acid; flavonoids (e.g. flavones, flavonols, flavonones, flavanones, flavanols, chalcones, anthocyanins), N-acetylcystein, mesna, glutathione, thiohistidine derivatives, triazoles; tannins, cinnamic acid, hydroxycinnamic acids and their esters (e.g. coumaric acids and esters, caffeic acid and their esters, ferulic acid, (iso-) chlorogenic acid, sinapic acid); spice extracts (e.g. from clove, cinnamon, sage, rosemary, mace, oregano, allspice, nutmeg); carnosic acid, camosol, carsoic acid; rosmarinic acid, rosmarinidinphenol, gentisic acid, ferulic acid; oat flour extracts, such as avenanthramide 1 and 2; thioethers, dithioethers, sulphoxides, tetraalkylthiuram disulphides; phytic acid, steroid derivatives (e.g. U74006F); tryptophan metabolites (e.g. 3-hydroxykynurenine, 3-hydroxyanthranilic acid), and organochalcogenides, or else is an oxidation suppressing enzyme. The concentration of BHA or BHT is between 0.001 and 2 w-% and especially between 0.005 and 0.02 w-%; of TBHQ and PG is between 0.001 and 2 w-%, most preferably is between 0.01 and 0.02 w-%; of tocopherols is between 0.005 and 5 w-%, most preferably is between 0.05 and 0.075 w-%; of ascorbic acid esters is between 0.001 and 5, most preferably is between 0.01 and 0.15 w-%; of ascorbic acid is between 0.001 and 5, most preferably is between 0.01 and 0.1 w-% of sodium bisulphite or sodium metabisulphite is between 0.001 and 5, most preferably is between 0.01 -0.15 w-%; of thiourea is between 0.0001 and 2 w-% and most preferably is between 0.001-0.01 w-% most typically 0.005 w-%; of cystein is between 0.01 and 5, most typically 0.5 w-%; of monothioglycerol is between 0.01 and 5 w-%, most typically 0.5 w-%; of NDGA is between 0.0005-2 w-% most typically 0.01 w-%; of glutathione is between 0.005 and 5 w-%, most typically 0.1 w-%; of EDTA is between 0.001 and 5 w-%, most typically between 0.05 and 0.975 w-%; of citric acid is between 0.001 and 5 w-%, most typically between 0.3 and 2 w-%.

The microbicide is selected from short chain alcohols, such as ethyl and isopropyl alcohol, chlorbutanol, benzyl alcohol, chlorbenzyl alcohol, dichlorbenzylalcohol; hexachlorophene; phenolic compounds, such as cresol, 4-chloro-m-cresol, p-chloro-m-xylenol, dichlorophene, hexachlorophene, povidon-iodine; parabens, especially alkyl-paraben, such as methyl-, ethyl-, propyl-, or butyl-paraben, benzyl-paraben; acids, such as sorbic acid, benzoic acid and its salts; quaternary ammonium compounds, such as alkonium salts, e.g. benzalkonium salts, especially the chlorides or bromides, cetrimonium salts, e.g. the bromide; phenoalkeciniurn salt, such as phenododecinium bromide, cetylpyridinium chloride or other such salts; mercurium compounds, such as phenylmercuric acetate, borate, or nitrate, thiomersal; chlorhexidine or its gluconate; antibiotically active compounds of biological origin, or a mixture of it.

The bulk concentration of short chain alcohols in the case of ethyl, propyl, butyl or benzyl alcohol is up to 10 w-%, most preferably is in the range between 0.3-3 w-% and in the case of chlorobutanol is in the



range between 0.3-0.6 w-% bulk concentration of parabens, especially in the case of methyl paraben is in the range between 0.05-0.2 w-% and in the case of propyl paraben is in the range between 0.002-0.02 w-% bulk concentration of sorbic acid is in the range between 0.05-0.2 w-% and in the case of benzoic acid is in the range between 0.1-0.5 w-% bulk concentration of phenols, triclosan, is in the range between 0.1-0.3 w-% and bulk concentration of chlorhexidine is in the range between 0.01-0.05 w-%.

The bulk concentration of short chain alcohols in the case of ethyl, propyl, butyl or benzyl alcohol is up to 10 w-%, most preferably is in the range between 0.3-3 w-% and in the case of chlorobutanol is in the range between 0.3-0.6 w-% bulk concentration of parabens, especially in the case of methyl paraben is in the range between 0.05-0.2 w-% and in the case of propyl paraben is in the range between 0.002-0.02 w-% bulk concentration of sorbic acid is in the range between 0.05-0.2 w-% and in the case of benzoic acid is in the range between 0.1-0.5 w-% bulk concentration of phenols, triclosan, is in the range between 0.1-0.3 w-% and bulk concentration of chlorhexidine is in the range between 0.01-0.05 w-%.

The less soluble amongst the aggregating substances is a lipid or lipid-like material, especially a polar lipid, whereas the substance which is more soluble in the suspending liquid and which lowers the average elastic energy of the droplet is a surfactant or else has surfactant-like properties and / or is a form of said lipid or lipid-like material which is comparably as soluble as said surfactant or the surfactant-like material.

The lipid or lipid-like material is a lipid or a lipoid from a biological source or a corresponding synthetic lipid or any of its modifications, the lipid preferably belonging to the class of pure phospholipids corresponding to the general formula where R1 and R2 is an aliphatic chain, typically a C10-20 acyl, or -alkyl or partly unsaturated fatty acid residue, in particular, an oleoyl-, palmitoleoyl-, elaidoyl-, linoleyl-, linolenyl-, linolenoyl-, arachidoyl-, vaccinylyl-, lauroyl-, myristoyl-, palmitoyl-, or stearoyl chain; and where R3 is hydrogen, 2-trimethylamino-1-ethyl, 2-amino-1-ethyl, C1-4-alkyl, C1-5-alkyl substituted with carboxy, C2-5-alkyl substituted with hydroxy, C2-5-alkyl substituted with carboxy and hydroxy, or C2-5 alkyl substituted with carboxy and amino, inositol, sphingosine, or salts of said substances, said lipid comprising also glycerides, isoprenoid lipids, steroids, sterines or sterols, of sulphur- or carbohydrate-containing lipids, or any other bilayer-forming lipids, in particular half-protonated fluid fatty acids, said lipid is selected from the group comprising phosphatidylcholines, phosphatidylethanolamines, phosphatidylglycerols, phosphatidylinositols, phosphatidic acids, phosphatidylserines, sphingomyelins or other sphingophospholipids, glycosphingolipids (including cerebrosides, ceramidepolyhexosides, sulphatides, sphingoplasmalogens), gangliosides and other glycolipids or synthetic lipids, in particular with corresponding sphingosine derivatives, or any other glycolipids, whereby two similar or different chains can be ester-groups-linked to the backbone (as in diacyl and dialkenoyl compound) or be attached to the backbone with ether bonds, as in dialkyl-lipids.

The surfactant or surfactant-like material is a nonionic, a zwitterionic, an anionic or a cationic surfactant, especially a fatty-acid or -alcohol, an alkyl-trimethylammonium salt, an alkylsulphate salt, a monovalent salt of cholate, deoxycholate, glycocholate, glycodeoxycholate, taurodeoxycholate, taurocholate, etc., an acyl- or alkanoyl-dimethyl-aminoxide, esp. a dodecyl-methyl-aminoxide, an alkyl- or alkanoyl-N-methylglucamide, N-

alkyl-NN- dimethylglycine, 3-(acyldimethylammonio)-alkanesulphonate, N-acyl- sulphobetaine, a polyethylene-glycol-octylphenyl ether, esp. a nonaethylene- glycol-octylphenyl ether, a polyethylene-acyl ether, esp. a nonaethylenedodecyl ether, a polyethylene-glycol-isoacyl ether, esp. a octaethylene-glycol-isotridecyl ether, polyethylene-acyl ether, esp. octaethylenedodecyl ether, polyethylene- glycol-sorbitane-acyl ester, such as polyethylenglykol-20-monolaurate (Tween 20) or polyethylenglykol-20-sorbitan-monooleate (Tween 80), a polyhydroxyethylene- acyl ether, esp. polyhydroxyethylene- lauryl, -myristoyl, -cetylstearyl, or -oleoyl ether, as in polyhydroxyethylene-4 or 6 or 8 or 10 or 12, etc., -lauryl ether (as in Brij series), or in the corresponding ester, e.g. of polyhydroxyethylen-8-stearate (Myd 45), -laurate or -oleate type, or in polyethoxylated castor oil 40, a sorbitane- monoalkylate (e.g. in Arlacel or Span), esp. sorbitane-monolaurate, an acyl- or alkanoyl-N-methylglucamide, esp. in or decanoyl- or dodecanoyl-N-methylglucamide, an alkyl-sulphate (salt), e.g. in lauryl- or oleoyl-sulphate, sodium deoxycholate, sodium glycodeoxycholate, sodium oleate, sodium taurate, a fatty acid salt, such as sodium elaidate, sodium linoleate, sodium laurate, a lysophospholipid, such as n-octadecylene(=oleoyl)-glycerophosphatidic acid, -phosphorylglycerol, or -phosphorylserine, n-acyl-, e.g. lauryl or oleoyl-glycero- phosphatidic acid, -phosphorylglycerol, or -phosphorylserine, n-tetradecyl- glycero-phosphatidic acid, -phosphorylglycerol, or - phosphorylserine, a corresponding palmitooleyP, elaidoyl-, vaccenyl-lysophospholipid or a corresponding short-chain phospholipid, or else a surface-active polypeptide. The average diameter of the penetrant is preferably 30 to 500 nm, especially 60 to 150 nm and the total dry weight of the droplets is preferably 0.01 to 40%, especially 0.5 to 20%, of the formulation. The total dry weight of droplets in a formulation is selected to increase the formulation viscosity to maximally 200 mPas, especially up to 8 mPas. At least one amphiphilic substance and/or at least one edgeactive substance or surfactant, and/or at least one hydrophilic fluid and the agent are mixed, if required separately, to form a solution, the resulting mixtures or solutions are then combined subsequently to induce, preferably by action of mechanical energy such as shaking, stirring, vibrations, homogenisation, ultrasonication, shearing, freezing and thawing, or filtration using convenient driving pressure, the formation of penetrants that associate with and/or incorporate the agent. The amphilic substances are dissolved in volatile solvents, such as alcohols, especially ethanol, or in other pharmaceutically acceptable organic solvents, such as ethanol, 1- and 2-propanol, benzyl alcohol, propylene glycol, polyethylene glycol or glycerol, other pharmaceutically acceptable organic solvents, such as undercooled gas, especially supercritical carbon dioxide, which are then removed, especially by evaporation or dilution, prior to making the final preparation. The formation of the penetrants may be induced by the addition of required substances into a fluid phase, evaporation from a reverse phase, by injection or dialysis, if necessary under the influence of mechanical stress, such as shaking, stirring, in especially high velocity stirring, vibrating, homogenising, ultrasonication, shearing, freezing and thawing, or filtration using convenient, in especially low (1 MPa) or intermediate (up to 10 MPa), driving pressure. The formation of the penetrants may be induced by filtration, the filtering material having pores sized between 0.01microm and 0.8 microm, especially between 0.05 microm and 0.15 microm, where several filters may be used sequentially or in parallel. The agents and penetrants are made to associate, at least partly after the formation of the penetrants, e.g. after injecting a solution of

the drug in a pharmaceutically acceptable fluid, such as ethanol, 1- and 2-propanol, benzyl alcohol, propylene glycol, polyethylene glycol or glycerol into the suspending medium and simultaneously with penetrant formation, if required using the drug co-solution and at least some, penetrant ingredients. The penetrants, with which the agent is associated, are prepared immediately before the application of the formulation, if convenient, from a suitable concentrate or a lyophilisate.

**Preferred Kit:** The kit comprises a device for administering a formulation contained in a bottle or any other packaging vessel.

**Preferred Patch:** The patch comprises a non-occlusive backing liner and an inner liner, where the backing liner and the inner liner define a reservoir and/or a matrix layer. The non-occlusive backing liner exhibits a mean vapor transmission rate (MVTR) of more than 1000 g/m squared day, preferably of more than 10.000 g/M squared day and has pores of smaller than 100 nm, preferably of smaller than 30 nm. The non-occlusive backing liner comprises a polyurethane membrane, preferably a polyester track-etched porous membrane, more preferably a polycarbonate track-etched porous membrane and most preferably a polyethylene microporous membrane. The inner liner prevents unwanted release of the formulation from the patch during storage and enables rapid skin wetting when contacted with the skin. The inner liner comprises a homogeneous membrane, preferably a polyester track-etched porous membrane or a polycarbonate track-etched. The membranes have a pore density of up to 5%, most preferably of more than 25% and/or a pore size in the range between 20 nm and 200 nm, most preferably between 80 nm and 120 nm. The inner liner comprises a hydrophobic mesh-membrane and/or a nonwoven fleece with mesh openings formed by hydrophobic threads. The inner liner comprises a microporous polyethylene membrane having average pore sizes in the range of between 50 nm to 3000 nm, especially of about 1500 nm.

The patch comprises a pressure sensitive adhesive layer, preferably an adhesive layer comprising polyacrylate, polyisobutylene, silicone, ethylene vinyl acetate copolymer, polyvinylpyrrolidone or polyethylene oxide hydrogel. The formulation viscosity is up to maximally 200 mPas, especially up to 8 mPas. The patch comprises one or more additional layers comprising desiccant containing layers, matrix layers, foam tape layers and/or protective layers. The patch comprises at least two compartments, which are separated from each other during storage. At least one of the compartments is inside and/or outside the patch. The formulation and/or the individual formulation components and/or the agent and/or the suspension/dispersion of penetrants without the agent are kept during the storage in several, preferably less than 5, especially in 2 separate compartments of the patch which, in case, are combined prior to or during or after the application of the patch. The outer compartment(s) comprise(s) injection systems, which are connected to the reservoir. The compartments are inside the reservoir, which is defined by the backing liner and the inner liner. The compartments are vertically stacked and /or are arranged side-by-side and / or one compartment is included in a second compartment, preferably without being fixed to the second compartment. The compartments are separated from each other by a controllably openable barrier, preferably a membrane and/or by a plug and/or by a compartment-forming lamination. Combining and mixing of the ingredients of the compartments is achieved by direct mechanical action, such as pressing, rubbing, kneading, twisting, tearing and /or indirectly by changing the temperature, osmotic pressure or electrical potential.

**ABEX ADMINISTRATION** - The formulation is applied by spraying, smearing, rolling or sponging on the application area, in particular by using a

metering sprayer, spender, roller, sponge or a non-occlusive patch, as appropriate. The barrier is a part of a mammalian body and / or a plant and preferably is skin and / or at least partly keratinised endothelium and / or nasal or any other mucosa. The area dose of the penetrant is between 0.1 mg per square centimetre (mg cm<sup>-2</sup>) and 40 mg cm<sup>-2</sup>, even more preferably is between 0.5 mg cm<sup>-2</sup> and 15 mg cm<sup>-2</sup> in case the penetrant is applied on the skin and/or the at least partly keratinised endothelium. The area dose of the penetrant is between 0.05 mg cm<sup>-2</sup> and 20 mg cm<sup>-2</sup>, even more preferably is between 0.5 mg cm<sup>-2</sup> and 10 mg cm<sup>-2</sup> in case the penetrant is applied on the nasal or other mucosa. The area dose of the penetrant is between 0.0001 (mg cm<sup>-2</sup>) and 0.1 mg cm<sup>-2</sup>, even more preferably is between 0.001 mg cm<sup>-2</sup> and 0.01 mg cm<sup>-2</sup> in case the penetrant is applied on plant body, plant leaves or plant needles (all claimed).

EXAMPLE - Droplets were made by mixing phosphatidylcholine from soy bean (87.4mg), sodium cholate (12.6mg) and pH 7.3 phosphate buffer (0.9ml) with a trace amount of 3H-DPPC. Various layers of skin were stripped and the proportion of the dose present was assessed. With 1.5 or 3.0µg applied lipid 13 to 16% of the dose penetrated to viable skin, whereas with 0.1µg applied lipid only 7% of the dose penetrated.

FS CPI; GMPI

MC CPI: A12-V01; B03-H; B04-B01B; B04-C02; B04-C03; B04-N02; B05-B01F; B10-A22; B10-B04A; B10-C03; B10-C04; B10-D01; B10-E02; B10-E04; B12-M02D; B12-M02F; B12-M09; B14-A01; B14-S08; B14-S11; D05-A02A; D05-H07; D08-B09A

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AN 2001-024529 [200103] WPIX Full-text

TI Sucralose-containing composition for sweeteners, edible products, thermal stability enhancers and discoloration inhibitors comprises sucralose and specific compound such as purine base, flavonoid or inorganic salt

DC D13; E13

IN HIRAO K; HIRAO K S E G; MADONO M; MADONO M S E G; MIE M; MIE M S E G; OJIMA N; OJIMA N S E G; SATO A; SATO A S E G

PA (SNGN-C) SAN-EI GEN FFI INC

CYC 90

PI WO 2000062628 A1 20001026 (200103)\* JA 81[0]

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ADT WO 2000062628 A1 WO 2000-JP2496 20000417; AU 2000036803 A

AU 2000-36803 20000417; EP 1177728 A1 EP 2000-915561

20000417; JP 2000611772 X JP 2000-611772 20000417; EP

1177728 A1 WO 2000-JP2496 20000417; JP 2000611772 X WO

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20011015; US 7029717 B1 US 2001-958907 20011015; US

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20000417; US 7662419 B2 US 2005-64516 20050224

FDT AU 2000036803 A Based on WO 2000062628 A; EP 1177728 A1 Based on WO 2000062628 A; JP 2000611772 X Based on WO 2000062628 A; US 7029717 B1 Based on WO 2000062628 A; US 7662419 B2 Div Ex US 7029717 B

PRAI JP 1999-324710 19991115  
JP 1999-109262 19990416  
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JP 1999-201684 19990715  
JP 1999-215489 19990729

IC ICM A23L001-236

IPCI A23L0001-236 [I,C]; A23L0001-236 [I,A]; A23L0001-236 [I,C]

IPCR A21D0002-00 [I,C]; A21D0002-18 [I,A]; A21D0002-24 [I,A]; A23G0003-00 [I,A]; A23G0003-00 [I,C]; A23G0003-34 [I,C]; A23G0003-36 [I,A]; A23G0003-38 [I,A]; A23G0003-42 [I,A]; A23G0003-48 [I,A]; A23L0001-236 [I,A]; A23L0001-236 [I,C]; A23L0002-52 [I,C]; A23L0002-60 [I,A]

EPC A21D0002-18B; A23L0002-24B; A23G0003-36; A23G0003-38; A23G0003-42; A23G0003-48; A23L0001-236D8; A23L0002-60

ICO K23V0002:00+SUCL

NCL NCLM 426/548.000

NCLS 426/544.000; 426/654.000

AB WO 2000062628 A1 UPAB: 20060116

NOVELTY - A sucralose-containing composition contains purine, pyrimidine, flavonoid, polyphenol, organophosphate, hydroxy acid, sulfur compound, lignan, carotenoid, tocopherol, saponin, organic acid, inorganic salt, amino acid, basic substance, polyol, porphyrin, chelating agent, melanoidin, reductone, oily fat, phospholipid, butylhydroxyanisole, citrus, betaine, or gingerol, orizanol and/or ferulic acid.

DETAILED DESCRIPTION - A sucralose-containing composition contains a purine base or a compound with a purine base structural component; or a pyrimidine base or a compound with a pyrimidine base structural component; or a flavonoid and/or its glycoside; or a polyphenol; or an organophosphate compound; or a hydroxy acid and/or its salt; or a sulfur-containing compound; or a lignan; or a carotenoid and/or its glycoside; or a tocopherol; or a saponin; or an organic acid and/or its salt; or an inorganic salt; or an amino acid; or a basic substance; or a polyol compound; or a porphyrin compound; or a chelating agent; or a melanoidin; or a reductone; or an oily fat; or a phospholipid; or butylhydroxy anisole and/or butylhydroxy toluene; or a citrus fruit juice; or betaine and/or isobetaine; or at least one from gingerol, orizanol and ferulic acid.

An INDEPENDENT CLAIM is also included for a production method for the composition, comprising drying an aqueous solution containing sucralose and at least one of the above constituents.

USE - For sweeteners, edible products such as food or drugs, hard candy production, sucralose thermal stability enhancers, sucralose discoloration inhibitors and sucralose sweetening enhancers (all claimed).

ADVANTAGE - The composition provides sucralose in a stable form, having significantly suppressed sweetness decrease and discoloration (browning or blackening), even when heated at high temperature under conditions of low water content and/or low pH.

TECH INORGANIC CHEMISTRY - Preferred Inorganic Salt: The inorganic salt is at least one from alkali metal and alkaline earth metal salts of phosphoric acid, metaphosphoric acid, pyrophosphoric acid, polyphosphoric acid, nitric acid, sulfuric acid and carbonic acid; or at least one from sodium chloride, potassium chloride, calcium chloride and magnesium chloride.

ORGANIC CHEMISTRY - Preferred Materials: The compound with a purine base structural component is a nucleoside, nucleotide or their salts. The purine base or compound with a purine base structural component is at least one from oenocyn, hypoxanthine, oenocyn acid, adenylic acid, guanylic acid and their salts. The compound with a pyrimidine base

structural component is a nucleoside or nucleotide. The pyrimidine base or compound with a pyrimidine base structural component is at least one from cytidylic acid, uridylic acid and their salts. The flavonoid is at least one from flavonol, flavanone and anthocyanidin. The polyphenol is at least one from tannin, tannic acid, gallic acid, catechol and caffeic acid. The organophosphate compound is at least one from phytic acid, glycerophosphoric acid, riboflavin phosphoric acid ester and starch phosphoric acid ester. The hydroxy acid is at least one from lactic acid, gluconic acid, tartaric acid, ketogluconic acid, glyceric acid, malic acid and citric acid. The sulfur containing compound is at least one from glutathione, methionine, cysteine, cystine and indigocarmine. The lignan is at least one from sesamin, sesamolin, sesamol and sesaminol. The carotenoid is at least one from alpha-carotene, beta-carotene, gamma-carotene, lycopene and capsacin. The saponin is at least one from digitonin, dioscin, glycyrrhizic acid and soy bean saponin. The organic acid is at least one from succinic acid, acetic acid, fumaric acid, itaconic acid, ketoglutaric acid, adipic acid and gluconic acid. The amino acid is at least one from arginine, histidine, glycine, alanine, serine, glutamic acid, aspartic acid, lysine, tryptophane, polylysine, betaine and theanine. The basic substance is at least one from alkaloid, nicotinamide, glucosamine, chitosan and pyridoxine. The polyol compound is at least one from ascorbic acid, ascorbic acid-stearic acid ester, ascorbic acid-palmitic acid ester, isoascorbic acid, inositol and sugar alcohol (especially at least one from erythritol, sorbitol, mannitol, starch syrup from reduced maltose, reduced paraneose, reduced lactose, xylitol, arabitol, galactol. reduced starch syrup, ribitol and glycerine). The porphyrin compound is at least one from protoporphyrin, porphyrin, chlorophyll, biliverdine and pyrrole. The chelating agent is at least one from dimethylglyoxime, ethylenediamine tetraacetic acid and their salts. The oily fat is at least one from beef tallow, pig fat, rape seed oil, corn oil, safflower oil and sesame oil. The phospholipid is at least one from phosphatidic acid, phosphatidyl glycerine and phosphatidyl choline. The citrus fruit juice is at least one from orange, lemon and citron (Chinese lemon). Preferred composition: The water content is at most 20 wt. %.

ABEX EXAMPLE - 0.01 pt. wt. Na inosinate powder was added to 1 pt. wt. sucralose powder, then 98.99 pts. wt. dextrin added, to give a powdery sucralose-containing composition. After heating at 120 degreesC for 1 hour, the sweetness showed only a minute change, compared to a substantial reduction for a comparative example prepared without Na inosinate.

FS CPI

MC CPI: D03-H01A; E05-G09; E06-A01; E06-A03; E06-D18; E07-A02A; E07-A02B; E07-D12; E10-A07; E10-B02; E10-C04; E10-C04D; E10-E02D; E10-J02C

L69 ANSWER 20 OF 22 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN

AN 1997-161434 [199715] WPIX Full-text

DNC C1997-051712 [199715]

TI Preventive and treating agent against intractable ulcer, gastritis and dermatitis - comprises e.g. antioxidative natural prod. and basic polysaccharide

DC A96; B05; D13

IN ITO M

PA (ITOM-I) ITO M

CYC 1

PI JP 09030987 A 19970204 (199715)\* JA 19[13]

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ADT JP 09030987 A JP 1995-207788 19950720  
 PRAI JP 1995-207788 19950720

IPCR A23L0001-30 [I,A]; A23L0001-30 [I,C]; A23L0001-302 [I,A]; A23L0001-302 [I,C]; A61K0031-185 [I,C]; A61K0031-19 [I,A]; A61K0031-35 [I,A]; A61K0031-35 [I,C]; A61K0031-65 [I,A]; A61K0031-65 [I,C]; A61K0031-715 [I,A]; A61K0031-715 [I,C]; A61K0038-00 [I,A]; A61K0038-00 [I,C]; A61K0045-00 [I,C]; A61K0045-06 [I,A]; A61P0001-00 [I,A]; A61P0001-00 [I,C]; A61P0001-04 [I,A]; A61P0017-00 [I,A]; A61P0017-00 [I,C]; A61P0031-00 [I,C]; A61P0031-04 [I,A]

FCL A23L0001-30 A; A23L0001-30 B; A23L0001-30 Z; A23L0001-302; A61K0031-35; A61K0031-715; A61K0031-73; A61K0045-06; A61P0001-00; A61P0001-04; A61P0017-00; A61P0025-04; A61P0031-04; A61K0031-35 (ACJ); A61K0037-02 (ACL); A61K0031-19 (ADA); A61K0031-65 (ADZ)  
 Index: A61K0031:65; A61K0031:725

FTRM 4B018; 4C084; 4C086; 4C201; 4C206; 4C086/AA01; 4C206/AA01; 4C084/AA02; 4C086/AA02; 4C206/AA02; 4C084/AA23; 4C086/BA08; 4C084/BA44; 4C206/DA21; 4C086/DA29; 4C084/DB37; 4C084/DC31; 4C086/EA23; 4B018/LB10; 4B018/LE01; 4B018/LE03; 4B018/LE04; 4C084/MA02; 4C086/MA03; 4C206/MA03; 4C084/MA28; 4C084/MA31; 4C084/MA35; 4C084/MA52; 4C084/MA63; 4B018/MD07; 4B018/MD10; 4B018/MD11; 4B018/MD12; 4B018/MD20; 4B018/MD23; 4B018/MD25; 4B018/MD26; 4B018/MD41; 4B018/MD48; 4B018/MD49; 4B018/MD60; 4B018/MD61; 4B018/MD74; 4B018/MD76; 4B018/MD84; 4B018/ME09; 4B018/ME14; 4B018/MS03; 4B018/MS06; 4B018/MS07; 4C086/NA14; 4C206/NA14; 4C084/ZA66.1; 4C084/ZA66.2; 4C086/ZA66; 4C206/ZA66; 4C084/ZA68.1; 4C084/ZA68.2; 4C086/ZA68; 4C206/ZA68; 4C084/ZA89.1; 4C086/ZA89; 4C206/ZA89; 4C084/ZA90.1; 4C084/ZB21.2; 4C084/ZB35.2

AB JP 09030987 A UPAB: 20050515  
 Preventive and treating agent comprises (i) antioxidative natural prod. or synthetic cpd; (ii) antioxidative antibacterial substance; and/or iii) basic polysaccharide. Also claimed are A) ulcer, gastritis and dermatitis preventive and treating agents containing i) quercetin, ii) tetracycline (TC), and iii) basic polysaccharide chitosan; and B) functional food for prevention and treatment of ulcer, gastritis and dermatitis. Antioxidative substance is pref. selected from quercetin, glutathione, tannin gp.(catechin), ferulic acid and seleniu cpd. Antibacterial substanc is pref. tetracycline cpd. such ss tetracycline, minocycline and doxycycline. Basic polysaccharide is pref. low molecular chitosan. The ulcer is stomach ulcer or duodenal ulcer caused by *Helicobacter pylori*. Ulcer is decubitus, thermal traumatic ulcer, congelational ulcer, diabetic ulcer, prognosis failure ulcer of zoster, radiation ulcer, drug allergic ulcer, immunodeficiency ulcer, postoperative ulcer or perithelial and endothelial ulcer; gastritis is chronic gastritis and dermatitis is atopic dermatitis. Antioxidative food is pref. e.g. Curcuma domestica Valetton, ginkgo, buckwheat, rice bran, DHE, EPA, vitamin E, vitamin C and vitamin B2 and basic polysaccharide is crab, shrimp and insect shells.  
 USE/ADVANTAGE - The agent is for the treatment or preventive material (agent or food) for intractable ulcer, gastritis and dermatitis. The agent is safe. - In an example, Quercetin (20 mg), low molecular chitosan (100 mg), tetracycline hydrochloride (10 mg), magnesium stearate (1.8 mg), hydropropyl cellulose (2.5 mg) and lactose (adequate amount) were mixed to give 300.0 mg/tablet. Quercetin suspended in 1 % gum arabic was orally administered (1 mg/100 g) to SD male rats. After the stomachs were taken out, the length (mm) and the width (mm) of the wounds were measured. The wound area was calculated by multiplying the length by the width. The results showed that oral admin. of quercetin (50 and 100 mg/kg) inhibited the appearance of H/Cl and ethanol gastric membrane wound by 42 % and 73 % respectively, compared to the control.

FS CPI  
 MC CPI: A03-A00A; A10-E09; A12-V01; B02-Z; B04-C02E; B14-E08; B14-E10B; B14-N17C; B14-S08; D03-H01; D03-H01Q; D03-H01T2

L69 ANSWER 21 OF 22 WPIX COPYRIGHT 2010 THOMSON REUTERS on STN  
 AN 1995-117844 [199516] WPIX Full-text  
 DNC C1995-053523 [199516]  
 TI Food preservative for addition to meat or fish paste -  
 comprises bacteriocin obtd. from *Pediococcus* organisms and e.g.  
 organic acid, aminoacid(s), alcohol, antibacterial peptide etc.  
 DC D12; D13; D16  
 IN YAJIMA M  
 PA (ASAM-N) ASAMA KASEI KK  
 CYC 1  
 PI JP 07039356 A 19950210 (199516)\* JA 8[0]  
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 JP 3040282 B2 20000515 (200028) JA 7  
 <--  
 ADT JP 07039356 A JP 1993-206925 19930730; JP 3040282 B2 JP  
 1993-206925 19930730  
 FDT JP 3040282 B2 Previous Publ JP 07039356 A  
 FRAI JP 1993-206925 19930730  
 IPCR A23B0004-14 [I,A]; A23B0004-14 [I,C]; A23L0003-3463 [I,C];  
 A23L0003-3472 [I,A]; A23L0003-349 [I,A]; A23L0003-3508 [I,A];  
 A23L0003-3517 [I,A]; A23L0003-3526 [I,A]; A23L0003-3562 [I,A];  
 C12P0001-04 [I,A]; C12P0001-04 [I,C]; C12P0021-00 [I,A]; C12P0021-00  
 [I,C]; C12R0001-01 [N,A]  
 FCL A23B0004-14 Z; A23L0003-3472; A23L0003-349; A23L0003-349 501;  
 A23L0003-3508; A23L0003-3517; A23L0003-3526 501; A23L0003-3562;  
 C12P0001-04; C12P0001-04 A; C12P0021-00; C12P0021-00 A  
 Index: C12R0001:01  
 FTRM 4B012; 4B021; 4B064; 4B065; 4B064/AG01; 4B064/CA02; 4B064/DA02;  
 4B064/DA10; 4B021/LW02; 4B021/LW03; 4B021/LW04; 4B021/MC01;  
 4B021/MC02; 4B021/MC03; 4B021/MC07; 4B021/MK02; 4B021/MK05;  
 4B021/MK06; 4B021/MK07; 4B021/MK17; 4B021/MK18; 4B021/MK20;  
 4B021/MK21; 4B021/MK23; 4B021/MK24; 4B021/MK28; 4B021/MP01  
 AB JP 07039356 A UPAB: 20050824  
 Food preservatives consists of (1) bacteriocin produced from *Pediococcus* gp.  
 and (2) one or more of (a) organic acid and its salts; (b) fatty acid esters  
 of polybasic alcohols; (c) aminoacids; (d) antibacterial peptide, or protein;  
 (e) polysaccharides of sugar, saccharic acid, and amino sugar and their  
 partly decomposed cpds.; (f) spices, and their purified oil, or their plant;  
 and/or (g) alcohol.  
 Pref. (a) is formic acid, acetic acid, propionic acid, valeric acid, lactic  
 acid, citric acid, tartaric acid, malic acid, fumaric acid, oxalic acid,  
 succinic acid, adipic acid, pyruvic acid, glutaric acid, sorbic acid, or  
 laurylsulphuric acid and their salts. (b) is propylene glycol fatty acid  
 ester, glycerine fatty acid ester, sucrose fatty acid ester, and/or fatty acid  
 polyglycerine ester. (c) is glycine, alanine, cystine, threonine, valine,  
 lysine, and/or arginine. (d) is protamine, lysozyme and/or polylysine. (e) is  
 pectin, oligo-galacturonic acid, galacturonic acid, and/or chitosan. (f) is  
 antibacterial spices (e.g. rosemary or mace), cinnamonic acid, ferulic acid,  
 caffeic acid, Hinok-thiol, Moosodake (bamboo) extract, and/or tea polyphenols.  
 (g) is propylene glycol and/or ethanol.  
 USE - Food preservatives are added to meat or fish paste. - In an  
 example, pediocin ACh produced from *Pediococcus acidilactici* H (0.1%), sodium  
 acetate (0.5%), and lactic acid (0.5%) were added to a meat paste (1000g)  
 containing onion (300g), flour (60g), and water (50g), formed into hamburgers  
 and preserved at 25 deg.C for almost 12 days with no change in odour, colour  
 and taste.  
 FS CPI  
 MC CPI: D02-A03A; D02-A03B; D03-H01Q; D03-H02E; D05-C



AN 1995-117843 [199516] WPIX Full-text  
DNC C1995-053522 [199516]  
TI Food preservative for addition to fish- or meat-paste -  
comprises bacteriocin obtd. from *Lactococcus lactis* and at least one  
of e.g. organic acid, amino acid, alcohol(s) etc.  
DC D12; D13; D16  
IN KANDA T; YAJIMA M  
PA (ASAM-N) ASAMA KASEI KK; (LIOY-C) LION CORP  
CYC 1  
PI JP 07039355 A 19950210 (199516)\* JA 7[0]  
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JP 3042573 B2 20000515 (200028) JA 7  
<--  
ADT JP 07039355 A JP 1993-206924 19930730; JP 3042573 B2 JP  
1993-206924 19930730  
FDT JP 3042573 B2 Previous Publ JP 07039355 A  
PRAI JP 1993-206924 19930730  
IPCR A23B0004-14 [I,A]; A23B0004-14 [I,C]; A23L0003-3463 [I,C];  
A23L0003-3472 [I,A]; A23L0003-349 [I,A]; A23L0003-3508 [I,A];  
A23L0003-3526 [I,A]; A23L0003-3562 [I,A]; C12P0001-04 [I,A];  
C12P0001-04 [I,C]; C12P0021-00 [I,A]; C12P0021-00 [I,C]; C12R0001-00  
[N,A]; C12R0001-225 [N,A]  
FCL A23B0004-14 Z; A23L0003-3472; A23L0003-349; A23L0003-349 501;  
A23L0003-3508; A23L0003-3526 501; A23L0003-3562; C12P0001-04;  
C12P0001-04 A; C12P0021-00; C12P0021-00 A  
Index: C12R0001:00; C12R0001:225  
FTRM 4B012; 4B021; 4B064; 4B065; 4B064/AG01; 4B064/CA02; 4B064/DA02;  
4B064/DA10; 4B021/LW02; 4B021/LW03; 4B021/LW04; 4B021/MC01;  
4B021/MC02; 4B021/MC03; 4B021/MC07; 4B021/MK02; 4B021/MK05;  
4B021/MK06; 4B021/MK07; 4B021/MK17; 4B021/MK18; 4B021/MK20;  
4B021/MK23; 4B021/MK24; 4B021/MK28; 4B021/MP01  
AB JP 07039355 A UPAB: 20050824  
Food preservatives consists of (1) bacteriocin produced from *Lactococcus*  
*lactis*; and (2) one or more of (a) organic acid and its salts, (b) amino acid;  
(c) antibacterial peptide or protein; (d) polysaccharides of sugar, saccharic  
acid, and amino sugar, and its partly decomposed cpds.; (e) spices, and their  
purified oil, or their paints, and/or (f) alcohols. Pref. (a) is formic acid,  
acetic acid, propionic acid, valeric acid, lactic acid, citric acid, tartaric  
acid, malic acid, fumaric acid, oxalic acid, succinic acid, adipic acid,  
pyruvic acid, glutaric acid, sorbic acid, or lauryl-sulphuric acid, and their  
salts. (b) is glycine, alanine, cystine, threonine, valine, lysine and/or  
arginine. (c) is protamine, and its decomposed cpds., lysozyme, and/or  
polylysine. (d) is pectin, oligo-galacturonic acid, galacturonic acid and/or  
chitosan. (e) is antibacterial spices (e.g. rosemary or mace), cinnamic acid,  
ferulic acid, caffeic acid, Hinoki-thiol, Moosodake (bamboo) extract, and/or  
tea polyphenols. (f) is propylene glycol and/or ethanol.  
USE - Food preservative is added to meat paste, or fish paste. - In an  
example nisin produced from *Lactococcus lactis* subsp. *lactis* (0.1%), and sodium  
acetate (0.5%) were added to a paste of meat (1,000g), containing onion  
(300g), flour (60g) and water (50g), formed into hamburgers, steamed for 25  
minutes, and preserved at 25 deg.C for 8 days, with no change in odour, taste  
and colour.  
FS CPI  
MC CPI: D02-A03A; D02-A03B; D03-H01Q; D03-H02E; D05-C

=&gt; d his nofile

(FILE 'HOME' ENTERED AT 10:44:56 ON 09 JUL 2010)

FILE 'REGISTRY' ENTERED AT 10:45:07 ON 09 JUL 2010

L1 1 SEA SPE=ON ABB=ON PLU=ON 9012-76-4/RN  
 L2 2834 SEA SPE=ON ABB=ON PLU=ON CHITOSAN?/CNS  
 L3 1 SEA SPE=ON ABB=ON PLU=ON 9000-69-5/RN  
 L4 2740 SEA SPE=ON ABB=ON PLU=ON PECTIN?/CNS  
 E VANILLIN/CN  
 L5 1 SEA SPE=ON ABB=ON PLU=ON VANILLIN/CN  
 L6 544 SEA SPE=ON ABB=ON PLU=ON VANILLIN?/CNS  
 L7 1 SEA SPE=ON ABB=ON PLU=ON 1135-24-6/RN  
 L8 5 SEA SPE=ON ABB=ON PLU=ON FERULOYL?/CNS  
 L9 344 SEA SPE=ON ABB=ON PLU=ON FERULOYL?/CNS  
 L10 309 SEA SPE=ON ABB=ON PLU=ON FERULAT?/CNS  
 L11 22 SEA SPE=ON ABB=ON PLU=ON FERULYL?/CNS  
 L12 1 SEA SPE=ON ABB=ON PLU=ON LIPID/CN  
 L13 3714 SEA SPE=ON ABB=ON PLU=ON LIPID?/CNS

FILE 'HCAPLUS' ENTERED AT 10:48:39 ON 09 JUL 2010

L14 35763 SEA SPE=ON ABB=ON PLU=ON L1  
 L15 39896 SEA SPE=ON ABB=ON PLU=ON L2  
 L16 20981 SEA SPE=ON ABB=ON PLU=ON L3  
 L17 37978 SEA SPE=ON ABB=ON PLU=ON L4  
 L18 15655 SEA SPE=ON ABB=ON PLU=ON L5  
 L19 26968 SEA SPE=ON ABB=ON PLU=ON L6  
 L20 10432 SEA SPE=ON ABB=ON PLU=ON L7  
 L21 10 SEA SPE=ON ABB=ON PLU=ON L8  
 L22 2612 SEA SPE=ON ABB=ON PLU=ON L9  
 L23 2021 SEA SPE=ON ABB=ON PLU=ON L10  
 L24 1355 SEA SPE=ON ABB=ON PLU=ON L11  
 L25 0 SEA SPE=ON ABB=ON PLU=ON L12  
 L26 56130 SEA SPE=ON ABB=ON PLU=ON L13  
 L27 QUE SPE=ON ABB=ON PLU=ON FERULOYL? OR FERULAT?  
 FERULIC? OR FERULYL? OR FERULOYL? OR FERULAT?  
 L28 QUE SPE=ON ABB=ON PLU=ON LIPID? OR FAT# OR OIL# OR WAX?  
 L29 QUE SPE=ON ABB=ON PLU=ON (EDIBLE? OR EAT? OR CONSUM?) (3A  
 ) (FILM? OR BARRIER? OR ?LAYER?)  
 L30 QUE SPE=ON ABB=ON PLU=ON PECTIN?  
 L31 QUE SPE=ON ABB=ON PLU=ON CHITOSAN?  
 L32 QUE SPE=ON ABB=ON PLU=ON VANILLIN?  
 L33 1863 SEA SPE=ON ABB=ON PLU=ON (L14 OR L15) AND (L16 OR L17)  
 L34 16 SEA SPE=ON ABB=ON PLU=ON L33 AND (L18 OR L19)  
 L35 6 SEA SPE=ON ABB=ON PLU=ON L34 AND ((L21 OR L22 OR L23 OR  
 L24) OR L27)  
 L36 16 SEA SPE=ON ABB=ON PLU=ON L30 AND L31 AND L32  
 L37 6 SEA SPE=ON ABB=ON PLU=ON L36 AND L27  
 L38 3 SEA SPE=ON ABB=ON PLU=ON L37 AND L28  
 L39 6 SEA SPE=ON ABB=ON PLU=ON L35 OR (L37 OR L38)  
 L40 77 SEA SPE=ON ABB=ON PLU=ON (L14 OR L15) AND ((L21 OR L22  
 OR L23 OR L24) OR L27)  
 L41 4 SEA SPE=ON ABB=ON PLU=ON L40 AND L29  
 L42 21 SEA SPE=ON ABB=ON PLU=ON L40 AND FOOD?/SC, SX  
 L43 12 SEA SPE=ON ABB=ON PLU=ON L40 AND FOOD?/SC  
 L44 12 SEA SPE=ON ABB=ON PLU=ON L43 AND L31  
 L45 6 SEA SPE=ON ABB=ON PLU=ON L44 AND L30

L46 15 SEA SPE=ON ABB=ON PLU=ON L39 OR (L44 OR L45)  
 L47 278 SEA SPE=ON ABB=ON PLU=ON (L16 OR L17) AND ((L21 OR L22  
 OR L23 OR L24) OR L27)  
 L48 32 SEA SPE=ON ABB=ON PLU=ON L47 AND (L18 OR L19)  
 L49 6 SEA SPE=ON ABB=ON PLU=ON L48 AND (L28 OR L26)  
 L50 8 SEA SPE=ON ABB=ON PLU=ON L48 AND FOOD?/SC  
 L51 12 SEA SPE=ON ABB=ON PLU=ON (L49 OR L50)  
 L52 23 SEA SPE=ON ABB=ON PLU=ON L46 OR L51  
 L53 15 SEA SPE=ON ABB=ON PLU=ON L52 AND (1840-2004)/PRY,AY,PY

FILE 'WPIX' ENTERED AT 11:48:05 ON 09 JUL 2010

L54 15 SEA SPE=ON ABB=ON PLU=ON L30 AND L31 AND L32  
 L55 3 SEA SPE=ON ABB=ON PLU=ON L54 AND L27  
 L56 82 SEA SPE=ON ABB=ON PLU=ON L27 AND L30  
 L57 1 SEA SPE=ON ABB=ON PLU=ON L56 AND L29  
 L58 41 SEA SPE=ON ABB=ON PLU=ON L27 AND L31  
 L59 1 SEA SPE=ON ABB=ON PLU=ON L58 AND L29  
 L60 1 SEA SPE=ON ABB=ON PLU=ON L57 OR L59  
 E US20070166437/PN,PRN,AN  
 L61 1 SEA SPE=ON ABB=ON PLU=ON US20070166437/PN  
 L62 1 SEA SPE=ON ABB=ON PLU=ON L58 AND A21D00137/IPC  
 L63 1 SEA SPE=ON ABB=ON PLU=ON L58 AND L29  
 L64 24 SEA SPE=ON ABB=ON PLU=ON L58 AND (FOOD? OR FRUIT? OR  
 VEGETABLE?)  
 L65 14 SEA SPE=ON ABB=ON PLU=ON L64 AND L28  
 L66 2 SEA SPE=ON ABB=ON PLU=ON L64 AND (FILM? OR BARRIER? OR  
 ?LAYER?)  
 L67 25 SEA SPE=ON ABB=ON PLU=ON L55 OR L57 OR L60 OR L62 OR  
 L63 OR (L64 OR L65 OR L66)  
 L68 10 SEA SPE=ON ABB=ON PLU=ON L67 AND (PRY<=2004 OR PY<=2004  
 OR AY<=2004)

FILE 'HCAPLUS, WPIX' ENTERED AT 11:57:53 ON 09 JUL 2010

L69 22 DUP REM L53 L68 (3 DUPLICATES REMOVED)  
 ANSWERS '1-15' FROM FILE HCAPLUS  
 ANSWERS '16-22' FROM FILE WPIX